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## **A multiple case study : gauging the effects of poverty on school readiness amongst preschoolers**

Melissa J. Onesto

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## ABSTRACT

### A MULTIPLE CASE STUDY: GAUGING THE EFFECTS OF POVERTY ON SCHOOL READINESS AMONGST PRESCHOOLERS

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The home environment, which includes the level of organization and stability in the home, plays a crucial role in the development of executive function and oral language skills. For children who live in a low-SES environment, executive function and oral language acquisition are inferior compared to that of students living at other economic levels. Executive function, which assists with attentional and inhibitory control, is underdeveloped in children who live in poverty. Stressors in the home environment influence joint attention during infancy, and receptive and expressive language skills are further thwarted during early childhood. Working memory, another component of executive function, assists a child with narration. For children who live in poverty, an underdeveloped working memory influences their success with retelling a story and hinders comprehension. Conversations in the home are more directive and are fewer than those that occur between a parent and child in a middle or upper middle-class family. Conversations and book reading provide a child with opportunities to practice language and expand vocabulary. In a low-SES environment, where parents work hard to get through daily tasks, book reading and playtime are not a priority. This study explored how executive function and oral language influence the development of vocabulary and early reading skills for

preschoolers who live in poverty. The case study of three families included observations, interviews, and document collection. The findings support previous research that suggests that poverty influences a preschooler's vocabulary development and early reading skills.

NORTHERN ILLINOIS UNIVERSITY  
DEKALB, ILLINOIS

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A MULTIPLE CASE STUDY: GAUGUNG THE EFFECTS OF POVERTY ON  
SCHOOL READINESS AMONGST PRESCHOOLERS

BY

MELISSA J. ONESTO  
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A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE  
DOCTOR OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Doctoral Director:  
Kerry Burch

## ACKNOWLEDGMENTS

Countless hours of reading, researching, collecting, and editing were necessary to complete this dissertation. Through all the long hours, many sacrifices were made not only by me, but also my family whose support was the critical ingredient that allowed me to complete this endeavor. My husband, Dave, was my constant cheerleader. His encouragement brought me to my feet after stumbling on many occasions. Throughout my journey as a researcher, and eventually as his caretaker, I grew to understand that crossing the finish line was meaningful to him as well as to me. In completing this work, I realize that all of life's journey is full of uphill battles that lead to greater fulfillment. The importance of being a caretaker to a loved one, or a caretaker to a stranger, transforms your soul and enhances your life. It is my hope that this work will provide care to those in need and enlighten those who care. And so, with this dissertation, I aspire to give back to others who endure greater uphill battles than I have experienced.

My two boys, Mark and Matthew, made sacrifices throughout high school and part of college. Their maturity and our close bonds provided them with the understanding to know that my efforts focused on a greater good beyond my doctoral pursuit. It is my hope that this degree stands as an example of not only what is possible for them but also how necessary struggle is for achieving success for others. It is also my hope that they know the unspoken struggles of so many others and how their hardships can cause our own secret toils to pale by comparison. As a parent, it is my desire that this work shines a light, no matter how dim, into the darkness of

countless other children who do not have what my children have. My children can recognize and confront inequity. They have the consciousness of human beings who can address challenges, set goals, plan, and achieve. The strength instilled in my children will hopefully be acquired one day by future generations of children who are presently powerless with regards to their education. Those children are the basis of this study and their future is the purpose.

I am additionally indebted to the chair of my committee, Dr. Kerry Burch. Dr. Burch demonstrated care throughout all my personal challenges and was forever exceptionally compassionate and pricelessly gracious. He stood by me throughout all my trials and tribulations and his confidence in my performance never appeared daunted. He provided excellent support and invaluable knowledge. Able to concisely articulate my thoughts and focus my passionate energies during our discussions, Dr. Burch quickly acquired a keen understanding of the direction I sought. He successfully assisted me with consolidating and organizing my ideas, and steered me to the appropriate committee member who would serve as the skillful guide for my qualitative research. I am deeply grateful to Dr. Burch and consider him to be the perfect partner for a project that reflects the very personal and deep-rooted beliefs I have fostered throughout a lifetime in education.

The educational perspective essential to my committee was made complete through the participation of Dr. Maylan Dunn-Kinney. A professor, early childhood expert, and former kindergarten teacher of students from a low-SES environment, Dr. Dunn-Kinney attentively led me to the background knowledge that would help define the needs of young children growing up in poverty. I first encountered the role that executive function plays in early childhood development through the literary resources shared during a semester-long course with Dr.

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Dr. Amy Stitch was the final member added to my committee of outstanding educators. She was suggested due to her knowledge of qualitative research, and she accepted the invitation without equivocation. Her participation was invaluable, from the design of the case studies to the parental interview questions. Dr. Stitch, always professional and dedicated, continued to support me even when she was experiencing grief. This was one more indication of the spirit of giving that was ever-present in Dr. Stitch and another reason why her presence was so important to this study designed to help children overcome educational hurdles. As educators, our life experiences provide us with the humility needed to understand and serve others. Through her selfless actions, Dr. Stitch provided me with a strong example of service.

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work at the school. They were kind, welcoming, supportive, and displayed both moral and professional integrity. The principal opened her door to me and allowed me to flourish in this setting. Another staff member also deserves to be specifically recognized. She co-ordinated and oversaw the parent meetings that allowed me to find the participants for my study. The meetings were designed to increase awareness of resources, activities, and strategies that could improve the parents' ability to raise healthy, confident children. This staff member was always warm and welcoming and allowed me to observe and bond with families as needed.

Finally, thank you to the children and parents who participated in this study. The trust of the parents was paramount and increased my ability to gain new insight into their personal lives and the lives of their children. This trust is respected and will hopefully be viewed by the parents as being carefully honored throughout the pages of this dissertation. It is my hope that readers of this work clearly understand that this paper is not an indictment of parenting styles but merely a window into the world of families who live with economic and emotional challenges. It has been designed to increase knowledge and not to cast judgement. This dissertation has been designed to provide insight, provoke greater thought, and open a door so that more knowledge can be pursued in a way that will positively affect the lives of children living in poverty.

## DEDICATION

To my husband and my sons for their limitless support and sacrifice  
so that this endeavor may be achieved

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## CHAPTER 1

### INTRODUCTION TO THE STUDY

It is not our role to speak to the people about our own view of the world, nor to attempt to impose that view on them, but rather to dialogue with the people about their view and ours. We must realize that their view of the world, manifested variously in their action, reflects their situation in the world. Education and political action which is [sic] not critically aware of this situation runs the risk either of “banking” or preaching in the desert. (Paulo Freire, 1993, p. 77)

#### Personal Perspective

Children with tired eyes, unkempt hair, cheeks streaked with the remains of salty tears, no coat, no socks, dirty clothes worn the previous day, and no backpack. Children who suffer from hunger pains, a toothache, a sore back from sleeping on a cot at a homeless shelter. Children who just moved in and are very familiar with the unfamiliar. Children who were just told the night before that they are moving again. Children whose mother or father is in jail, and their very young hearts long to be reunited. Children who are too young to be expected to understand the adult world that they live in, yet are expected to “know better” and “do better” when the only thing they own is their soul. Children who continue to come down the steps of the bus every day to greet me with a quiet “hello,” a shy smile, or arms aching to wrap around someone who cares they are at school every morning at 7:20 AM. These are the children I see every day. These are the children I work for, and these are the children who deserve more. If

the only thing they have is their soul, then we should nurture their souls so that one day they can not only give fully to themselves but also deeply of themselves.

Parents from a low-SES bring their children to the suburbs for the affordable housing and with hopes of a better life for their children. Suburban schools and neighborhoods are presumed to be better than those in urban communities. More opportunity is available due to less crime, less overcrowding, and less heartache. Little is known about suburban life, just as little is known about how to raise your children with limited funds, no car, high stress, and lack of knowledge about how to navigate the system to secure the proper supports for your family. The dream of every parent is to raise his or her children so they are able to make better choices than his or her parents did and to have more opportunities. Parents who move to the suburbs transfer their already confused and chaotic lives to a different social environment that appears hopeful to aspirational families. The feeling derived from embarking on a new opportunity and beginning a new life is all too often squelched as the habits of mind that have been deeply inculcated through generations of poverty overpower the ability to overcome hardship. It is easy to love a child in the abstract, but taking care of a child beyond providing for very basic needs is uncommon among the very poor because the prerequisite skills were never developed by these parents when they were children. Parents and other caretakers have withstood generations of despair born of the structural inequalities that continue to plague the nation. Many of these parents live only day-to-day while trying to keep a roof over the heads of their children. The first priority is survival. Shelter and food equal safety. Parenting skills that will enable them to help their children to emerge from the unyielding grasp of poverty are nowhere present.

As an educator in a high-poverty school, I have witnessed the parents' hopes of a better life in suburbia diminish as families undergo many of the same social and class experiences that they encountered while previously living in Chicago or another large metropolitan city. The problems associated with being poor are the same everywhere. The hopes and dreams that education could offer are thwarted by the daily struggles of living an impoverished life. As Jean Anyon (2011) has shown, the chaos and uncertainty of poverty leads families into a perpetual cycle of distress. Children then become the helpless offspring of generational poverty. They come to school to not only learn but to transcend their circumstances. However, it seems impossible to escape poverty, even in the sanctuary of our classrooms. Hidden barriers to learning become manifest in the classroom and are the emotional and physical baggage they bear. Educational reformers do not adequately acknowledge the traumatic scars that the schools often impose upon whole classes of citizens, such as setting learning standards beyond the developmental levels of children who do not yet know the letters of the alphabet and are unable to follow directions in the classroom. Still, educational standards continue to be designed with the middle-class student in mind. In his book *Savage Inequalities*, Jonathan Kozol wrote that educational policies are deeply inadequate when addressing the effect poverty has on education. His observations have provided evidence that the needs of the poor are treated the same as the needs of middle and upper middle-class students. The problem lies in the fact that "the voices of the children, frankly, had been missing from the whole discussion" (1991, p. v). The words of the poor children are being spoken but are not being heard. Eventually, as children become older, their voices surrender to the status quo and become quiet.

As someone who teaches reading to these youngsters, what I can do is learn more about the children I educate. It is important that I have a better understanding of the depth of their problem, which lies within the factors that separate my students from other students who are achieving and excelling in school. The overwhelming factor that separates my students from those who are successful in school is poverty. Living in poverty, or low-SES (Socio Economic Status), does not simply indicate living without money and resources. The word “poverty” is used to define living status but not merely a house, apartment, or shelter. Being impoverished defines a complex, multifaceted condition that brings with it a multitude of hurdles and hardships. Because I have always believed that education for human flourishing must encourage students to grow not only intellectually but also spiritually, I continue to believe in the potential of education to offer a way out of poverty. Education, in this sense, may become a way out if a child’s intellectual needs are fully addressed in the classroom. Addressing a child’s needs requires a complete understanding of the limiting situations that hinder his or her intellectual growth. My study was a personal journey for me. It was a journey to explore how the conditions of poverty work to create a learning gap even before the young enter school. Given this focus, my study entailed a journey to understand the families who live in poverty. Without an understanding of these often-ignored social impacts, we will continue to apply the same standards for learning to all students without fully appreciating the needs that arise out of the conditions of poverty. In this study, I illuminated the unique predicaments that children of living in poverty experience. And I investigated how the development of their reading capacities is shaped by these conditions.

## Introduction

Reading achievement in the earliest years may look like it's just about letters and sounds. But it's not. Reading achievement, as it becomes inevitably clear by grades 3 and 4, is—once again—about meaning. Successful reading ultimately consists of knowing a relatively small tool kit of unconscious procedural skills, accompanied by a massive and slowly built-up store of conscious content knowledge. It is the higher order thinking skills, knowledge, and dispositional capabilities, encouraging children to question, discover, evaluate, and invent new ideas, that enable them to become successful readers. (Neuman, 2010, p. 301)

The ability to read allows a child living in poverty to break free from the reins of oppression. Reading opens the doors to all academic areas, and the journey of a skilled reader can lead to a bright future far beyond the walls of high school or college. Reading improves understanding and refines thinking skills. The ability to not only read but to read well can transform the human spirit and empower those who feel powerless (Neuman, 2008).

Early literacy skills begin to develop during infancy. Students who begin the primary grades with a solid grasp of oral language and vocabulary; phonological awareness; alphabet awareness; concepts of print, comprehension, and writing are considered to have the prerequisite knowledge to become a skilled reader (Blamey & Beauchat, 2016). Based on my experiences as an educator in a high-poverty school and district, kindergartners who live in poverty begin school significantly behind the expected skill level of other 5-year-old's. These 5-year-old's are unable to effectively articulate their experiences due to underdeveloped language and processing skills. If they could, their educators could better serve their academic and emotional needs. When given directions, or asked questions, they seem to ignore the speaker as they try to sort out, unsuccessfully, the words they hear. The vocabulary level

needed for kindergarten success appears unreachable by them when school begins, and the size of the deficit widens significantly as a child living in poverty grows older.

Language directly affects reading development, and the language components needed for reading success are acquired in the home years before kindergarten begins. Healthy language development leads not only to a child's success in reading but also provides the ability to develop higher order thinking skills. According to Bruner (1983), a child's thinking develops appropriately when oral language is fluent and structured. Oral language, the spoken word, is comprised of four components: phonology, syntax, morphology, and pragmatics (Clay, 1991). It is essential to understand the integral parts of language knowledge to appreciate the importance of vocabulary, a key factor in reading success.

Vocabulary development is critical to comprehension because knowing the words leads to an understanding of the context. Vocabulary knowledge contributes to phonemic awareness and improves decoding skills and fluency. A larger vocabulary increases understanding, improves the ability to communicate accurately, and is instrumental in composition (Otto, 2010). In contrast, an underdeveloped vocabulary negatively affects reading and writing skills.

A weak vocabulary foundation is a strong contributor to the underachievement of children from a low-SES environment and hinders their ability to escape the confines of poverty. An impoverished home environment is often bereft of considerable conversation, extensive vocabulary, and reading material. The absence of substantial language input from a child's environment shapes both receptive (i.e., listening) and expressive (i.e., speaking) language skills. Both types of language are necessary for communication, social interaction, listening, and understanding (Neuman, 2008). Vocabulary is used as part of receptive language and connections are made prior to a child expressing wants and needs which

eventually transforms into narration. A child who is unable to appropriately narrate (i.e., use expressive language) will struggle with comprehension which affects all academic areas throughout school (Spencer & Slocum, 2010).

Researchers in the area of language development Vernon-Feagans, Garrett-Peters, Willoughby, and Mills-Koonce (2012) stated,

Daily household chaos over children's first three years of life may be one of the proximal pathways to children's poorer language development in low-wealth communities, as well as underscore the importance of household disorganization in predicting child language, above and beyond the contribution of SES and parenting. (p. 350)

Lack of time due to a parent working two or more jobs, lack of resources, lack of health supports, high mobility, chaotic living environments, stress, depression, homelessness, and hunger are a few of the major difficulties endured by a young child living in poverty who is developing mentally and physically within the home. Blair's (2012) research presents compelling evidence that, in the United States, the gap between those who live in poverty and those who do not is currently at the widest. This fact underscores the need to continue research on the vocabulary development of children living in poverty.

In addition to vocabulary development, Blair's research suggests that the so-called "executive function" within the human brain, which is said to assist a child with learning and thinking skills, can also be impaired by poverty. According to Blair (2012), a child's experiences during early childhood shape brain networks, and "children in poverty tend to present resting levels of stress hormones (cortisol) that are higher or lower than children from higher income homes" (p. 10). A lack of joint attention (the infants' interactions with the caregiver) and the presence of chaos in the home, both products of poverty, affect a child's

early development. The relationship between a caregiver, a child, and the environment within a home is paramount to the development of executive function and emergent literacy skills. The concept of executive function in a preschooler, which lies in the prefrontal cortex of the brain, is defined as “the cognitive self-regulation necessary for planning and completing complex tasks that predicts later math and literacy skills” (Dilworth-Bart, 2012, p. 416). Scholars argue that executive function begins to develop during infancy but is not fully developed until well into adulthood. Important learning skills rely upon executive function such as the regulation of perception, thought, and behavior (Garon, Bryson, & Smith, 2008).

Understanding the effect that executive function and vocabulary knowledge have on reading and school success is critical if meaningful educational progress is to occur. Much of the research underpinning contemporary educational reform efforts seldom considers the child who lives in poverty even though these students become the prime focus when schools are criticized as failing. According to Tom Loveless, an education policy expert, there is no correlation between contemporary educational reform and student achievement, which adds to the argument that educational policies do not increase achievement for children from low-SES (as cited by Layton, 2014). Anyon (2011) found, paralleling reading expert Neuman (2003), that the very programs designed to increase achievement actually decrease student progress in impoverished school settings. Not only is financial capital required to initiate these programs, but the basic assumption is erroneous that the playing field for all students is finally leveled through these initiatives.

## Problem Statement and Key Question

### Problem Statement

Executive function and language acquisition play a significant role in a child's ability to read, write, and comprehend. Both executive function and language are necessary for learning, acquiring, articulating, and thinking in terms of words and concepts. Because children from a low-SES environment experience fewer conversations, have less access to positive resources, such as books in the home and excursions which enhance vocabulary development, and receive infrequent mental stimulation, they enter kindergarten with significant vocabulary gaps that impede literacy development (Neuman, 2003). There is significant research on language development, but schools do not effectively provide interventions to close the gap between students who live in poverty and students from a higher socioeconomic background. Harvard University's Center on the Developing Child (2005/2014) indicates that research on executive function in early childhood needs to continue in order to effectively halt the reproduction of poverty. Educational opportunities that include developing language-rich learning environments that consider the developmental levels of all students in the classroom. Executive function and language in early childhood development have been researched, but little research has simultaneously taken both contributing factors into consideration with regards to children living in poverty. Both factors influence reading, specifically vocabulary development that is a crucial reading component lacking in most children living in poverty. Due to the need for additional research, the purpose of this study was to explore the relationship of three preschoolers from low- SES environments with their parents and to

explore how the development of executive function and language influenced the preschoolers' vocabulary and reading development.

### Key Question

The study sought to address the following research question:

How does the development of executive function and language for a preschooler living in poverty influence vocabulary and early reading skills?

### Theoretical Framework

Two theories are explored that provide a lens through which to view a young child living in poverty: social development theory and social justice theory. Both theories present a framework for exploring executive function and language development in early childhood.

### Social Development Theory

Lev Vygotsky, a Russian theorist who studied childhood cognitive development, is associated with social development theory (Moll, 1991). Vygotsky contended that thought begins as a social process, and he recognized the power cultural and historic context have on a young child's development (Smagorinsky, 2007). Vygotsky is often referred to in both the area of language development and in cognitive development. According to Vygotsky (1978), environment influences a child's development. More specifically, he theorized that thinking has a social and cultural framework that can be exhibited in the semantic use of language and in the social pragmatics of conversation. Vygotsky considered the cultural and historical context of a child's growth as being the foundation that aids in the design of who the child will become. He

suggested that to understand a child's mental functioning, you need to go outside the child and examine the individual's social and cultural origins, language, and thought. Three- and 4-year-olds portray their social and cultural experiences through pretend play. According to Milteer and Ginsburg (2012), The American Academy of Pediatrics further supports Vygotsky's claim that play is socially and emotionally important to healthy child development. For a child who lives in poverty, play is often hindered by safety factors, such as living in an unsafe neighborhood that prevents children from going outside to play with friends or from going to a neighborhood park. Milteer and Ginsburg write that children learn from and bond with adults when they play, but parents raising children in poverty have little time or energy to play with their young children which hinders role playing, vocabulary development, and healthy self-esteem (Milteer & Ginsburg, 2012, pp. 204-6). When a child plays with parents, he or she can be overheard using the language of the parent and acting out the activities that occur in their homes. Play encourages conversations, increases the bond between parent and child, and enhances social skill development. Growth in these areas is severely limited when a child lives in poverty. Social development theory argues that consciousness and cognition are a product of social development. A child living in poverty and bereft of sufficient play has diminished cognitive skills and ability to perform well in the classroom.

### Social Justice Theory

The philosophy behind Vygotsky's beliefs is significant to this study with regards to language and thinking in early childhood as they relate to bonding, play, and communication. As previously noted, language and thinking development are divergent with regards to the social and economic classes of society. The impoverished class possesses fewer opportunities

than the middle class and even fewer than the upper class. Because poverty is often generational and influences emotional, mental, physical, and intellectual well-being, social justice theory has been chosen as part of the conceptual framework for this study. The experience of individuals living in poverty must be examined through daily encounters that reveal the barriers separating the lower class from the middle and upper classes, and even barriers separating the multiple layers within the lowest socioeconomic group. Paulo Freire, a philosopher and educator, wrote about individuals living in poverty and the limits placed upon them (Darder, 2015). Antonia Darder, reflecting upon Paulo Freire, wrote,

It is, moreover, through our capacity to observe and interpret what Freire called *limit situations* and to engage these objectively, alongside the historical conditions that inform them, that provide us new knowledge from which to make liberating decisions, within our classroom and communities. (Darder, 2015, p. 17)

Freire defined limit situations when he wrote, “Once perceived by individuals as fetters, as obstacles to their liberation, these situations stand out in relief from the background, revealing their true nature as concrete historical dimensions of a given reality” (1993, p. 80). Therefore, it is necessary to understand the limit situations that impede emergent literacy and school readiness skills of preschoolers who reside in a low socioeconomic environment.

The barriers that confine generations of children to poverty become manifest in school and present inequities made apparent when compared to instructional beliefs which meet the needs of learners from more affluent backgrounds. The classroom learning environment defies the belief that all members of society should have equal access to positions of authority, occupations of choice, freedom of thought, an adequate standard of living, and other aspects of a free society as promoted by social justice theory. This theory is based on the belief that

impoverished citizens should receive an education that is as transformative as the education provided to the more elite populace. It is erroneous to suggest that because children from poverty hear the same instruction as their more affluent peers, they are able to understand the same instruction. The prerequisite academic skills needed to successfully enter kindergarten in a public school may not be present for students coming from a low socioeconomic environment. Children who grow up in poverty have obstacles that hinder development. Therefore, the education of children living in poverty should reflect the existence of these obstacles in order to provide the intellectual development which will allow them to rise from poverty.

Freire (1993) and Anyon (2011) have written extensively about oppression caused by the tyranny of the rich and the oppression of the poor. Knowledge of this oppression is necessary in order to effectively educate. Through his experiences with poverty, Freire coined the term “conscientization,” which denotes critical consciousness. This is consciousness that is understood to have the power to transform reality (Smith, 1997/2002) and the ability to perceive contradictions. Contradictions in public education hinder more than help students who live in poverty. Contradictions must be recognized in order to overcome them. Antonia Darder wrote, “What Freire’s writings made clear to educators and activists are that schools are enmeshed in the political economy of society and at its service” (2015, p. 8). Freire wanted schools to teach students to think for themselves, to question, and to have the ability to rise up from their impoverished circumstances through education. However, educational institutions teach in a manner that maintains the status quo. If the intellectual and emotional outcomes of poverty are not addressed by policy makers, the needs of impoverished children will never be met in the classroom. If the educational system continues to teach all children in the same

manner, regardless of their backgrounds, social supports, and financial resources, generational poverty will never end. If, instead, children are taught language skills in a manner designed to fill in the gaps, and if executive function is improved, children who live in poverty will finally be able to rise above their circumstances through new thinking and language skills and, ultimately, improved reading skills.

Social development theory and social justice theory together provide a conceptual framework through which to better interpret the relations between poverty and vocabulary acquisition. Social development theory is the foundation of Vygotsky's belief that social interaction plays an integral role in the development of cognition (Vygotsky, 1978). The aim of social justice theory is to promote human capabilities on an equal basis, which includes access to appropriate education.

### Significance of the Study

This study adds to the existing literature on why children from poverty are not performing well in public schools. It is unique in that it focused on both the development of executive function and language development in children living in poverty. Little research has addressed these two factors simultaneously. In addition, this study's research on the factors that hinder the development of executive function in poverty is new, and more research is required about this topic.

This study was needed because the current reforms in education have done nothing to increase achievement in schools where the SES of the students is low. It can benefit the parents of children living in poverty because it enables the voices of parents to be heard and their stories to be told. The importance of vocabulary development was underscored through the

data that was gathered, and teachers can now better understand the curriculum that is needed to increase achievement. Finally, policy makers will hopefully begin to realize that the current curriculum taught in kindergarten classrooms will not increase student achievement for the children like those in this study. The multiple factors inherent in poverty that contribute to a lack of vocabulary acquisition and poor reading skills lead to generations of unsuccessful, impoverished adults. If the achievement levels of students in low-SES schools do not increase, more money will be needed for public housing, medical care, foster care, crime prevention, and the prison population.

### Definitions

At Risk - Children who live below the poverty line, speak a language other than English, have a mother with less than a high school education, or live in a single-parent family have been identified as being at risk of having more learning difficulties after they start school (Neuman, 2008).

Banking - Paulo Freire wrote that “banking education” reflects the purpose of public education. Antonia Darder wrote, “In contrast, the banking model of education, with the objectivation of students as vessels to be filled with knowledge, thwarts the establishment of an emancipatory process of learning and, thus, constitutes an act of disrespect and violence” (2015, p. 55).

Chaos - Chaos is defined by Vernon-Feagans, Garrett-Peters, Willoughby, & Mills-Koonce (2012) as “systems of frenetic activity, lack of structure, unpredictability in everyday activities, and high levels of ambient stimulation” (p. 339). The authors further identified two components of chaos: instability and disorganization. Instability in the environment includes household moves, the number of people transitioning in and out of the home, and changes in parental

figures. A disorganized home encompasses ambient noise in the residence and neighborhood, household crowding, and a lack of structure and routines (Vernon-Feagans et al.).

Joint attention - Joint attention describes an infant's interactions with a parent or caregiver and significantly influences language development. Joint attention has been defined by Salley and Dixon (2007) as "engaging in eye-to-eye gaze with social partners" (p. 131). Vocabulary acquisition begins during this intimate process when a parent states the name of the objects that are gazed at. The complete range of joint-attention skills occurs between 12 and 18 months of age. (Salley & Dixon, 2007).

Morphology - Morphology is the study of words and how they relate to other words (Blamey & Beauchat, 2016).

Phonology - Phonology is understanding of the sounds in language (Blamey & Beauchat, 2016).

Pragmatics - Pragmatics is the way in which context contributes to the meaning of words during conversation. Mothers in a high-SES home converse with their children frequently. The conversations encourage expressive language, and the parent models appropriate language usage. In a low-SES household, conversations initiated by the parent are few and far between (Rowe, 2008).

Semantics - Semantics is the meaning of words. Vocabulary and oral language are integrally related to background knowledge. Words are added to the lexicon by making connections and determining the relationships between already-stored words (Neuman, 2008).

Title 1 - Title 1 is the largest federally funded education program designed to assist schools with the highest student concentrations of poverty in order to meet educational goals (U.S. Department of Health, Education and Welfare, 1969).

## Methodology

The methodology was a qualitative approach involving a case study of three preschoolers in a western suburb of Chicago. Observations of the children and their parents, interviews with the parents, and documents provided rich data. The interviews and the observations provided details about language usage and the environment in each child's home. Data analysis occurred both during and after the field work was completed. Data were collected in the form of notes, observations, interviews, and documents. Data from this study were triangulated to increase the validity.

## Delimitations

This study was limited to three preschool children and their parents from a suburban preschool facility. The children resided in a low-SES homes. The three mothers of the three children were interviewed, and contact with the parents was made through the facility's staff and teachers. The small sample size allowed for in-depth data collection. The study occurred over the course of one preschool semester. Readers can make their own generalizations based upon the thick descriptions obtained during the qualitative study and reported here.

## Organization of the Study

This dissertation is organized into six chapters. Chapter 1 presents the problem statement and purpose of the study as well as an introduction to the methodology and the conceptual framework. Chapter 2 presents the existing literature on poverty, executive function, and language development. Chapter 3 presents the methodology and rationale for data

collection. Chapter 4 provides the data from observations, interviews, and documentation. Chapter 5 presents the themes extrapolated from the findings. Finally, the discussion, implications, and recommendations for future research are detailed in Chapter 6.

## CHAPTER 2

### REVIEW OF LITERATURE

For a primary grade educator, there is no greater passion than teaching students to read. A student who cannot read will not be able to write and will not become an academic thinker. This student will one day fall so far behind his or her peers that eventually, formal education will become meaningless. The negative feelings that a child experiences when unable to read can manifest into aggression, apathy, hopelessness, and profound insecurity (Connor & Craig, 2006). Oftentimes, students drop out of high school due to a lack of school success. If school provides no hope to a student, gang affiliation, teen pregnancy, drug abuse, and /or criminal behavior may ensue (Duncan & Magnuson, 2005).

This study involved observations of and conversations with individuals who resided in low-SES households. The parents in this study experienced difficulties when they were in school and their combined memories of school included a struggle to read, lack of parental support, apathy, academic failure, and dropping out of high school. The limit situations of poverty that Paulo Freire wrote about were demonstrated in the lives of the parents interviewed. The uncertainty and worry about the academic future of their children was also discussed. Even though the children in this study were only preschoolers, they exhibited underdeveloped executive function and language skills that would one day hinder their ability to read.

The success a child has with reading is determined by a child's executive function and language development. Both components provide necessary ingredients for learning to read.

The home environment either promotes healthy brain and language development or delays it by not providing experiences that fuel growth. A child who lives in a low-SES environment experiences fewer conversations, fewer opportunities to experience novel activities, reads fewer books, and experiences fewer bonding opportunities with his or her parent than a child from a higher SES. Research indicates that the gap between those who live in poverty and those who do not is currently at its widest (Blair, 2012), which supports the need to further explore the factors that impede reading achievement.

#### The Review of Literature on Executive Function and Language Development

The following literature review explores the current research on executive function and the language development of young children who live in poverty. Researching these two elements is critical for understanding the reading deficiencies of students from poverty and the challenges that public schools face that serve students from low-SES environments. In order to gain further insight into why students from a low-SES struggle with reading and therefore perform poorly in school, the following literature review reveals that more research is needed.

Articles were chosen for this review which focus upon either executive function or language development or both. Articles were selected because they aim to tie either one or both of these components to reading skills. The effects of poverty are well documented by all researchers in this review. More articles are available to researchers on the effect poverty has upon language development and reading skills than upon executive function.

## Executive Function

The relationship between the caregiver, a child, and the environment within the home is paramount in the development of emergent literacy skills. These factors not only affect language but also brain development. The first 5 years of life are critical in the development of executive function. Executive function is the slowest developing part of the brain. Executive function has been defined as “the cognitive self-regulation necessary for planning and completing complex tasks that predicts later math and literacy skills” (Dilworth-Bart, 2012, p. 416). In early infancy, attentional control, inhibitory control, and working memory begin developing. These three core skills of executive function are the foundation for more complex skills: semantic fluency, abstract thinking, and complex problem solving (Dilworth-Bart, 2012). Because it is slow in developing, the environment can hinder the maturity of executive function, and this under-development becomes more apparent as a child moves from the early school years of learning to read toward reading to learn (Garon et al. 2008).

### Attentional Control

Attentional control allows a child to maintain engagement, which increases learning. It allows a student to concentrate on one thing while ignoring others (Dilworth-Bart, 2007). This skill is paramount in the classroom. The prefrontal cortex is responsible for this skill, but it cannot develop appropriately when there is a chaotic home environment for the child. A child who lives in a chaotic home environment will have difficulties concentrating in the classroom and maintaining focus for periods of time. Without developing the necessary component of

attention in executive function, a child's ability to learn new information will hinder school readiness and future academic growth (Garon et al. 2008).

The research completed recently indicates that executive function affects not only a child's ability to focus and learn but also affects comprehension and narrative ability (Spencer & Slocum, 2010). In her study, Dilworth-Bart provided support for this finding using a joint-significance approach by investigating participants who were 54-66 months of age (2012). Her study reflects the work of other researchers such as Arnold, Kupersmidt, Voegler-Lee, and Marshall (2012). Both of these studies were designed to focus upon preschool readiness. Children were assessed, and their results were compared to social functioning and home quality. Using descriptive statistics, Arnold et al. (2012) provided convincing evidence to support their hypothesis that the social functioning of a preschooler is a product of poverty and will interfere with the development of skills that predict reading readiness. The Dilworth-Bart study also revealed the same outcome.

### Inhibitory Control

The ability of a child to stop what he or she is doing or delay gratification is known as inhibitory control. This concept has been studied and tied to a child's success in the classroom. Inhibitory control, like attentional control, is a learning skill derived from executive function which also develops in early childhood. Inhibitory control allows a child to follow directions and perform a less-than-desirable task (i.e., stop playing and resume work at your desk). Previous research has shown a strong correlation between executive function, particularly inhibitory control, and verbal abilities (Blair, 2012).

According to Blair (2012), a child's experiences during early childhood shape brain networks, and "children in poverty tend to present resting levels of stress hormones (i.e., cortisol) that are higher or lower than children from higher income homes" (2012, p. 21). Arousal creates a release of cortisol which pushes an individual into action. In his study, Blair discussed earlier research by psychologists Robert M. Yerkes and John Dillingham Dodson from the 1970s. The psychologist team discussed a landmark study showing that positive arousal increases energy, whereas negative arousal (i.e., stress) decreases cognitive processes like attention, working memory, and problem solving. Executive function can be inhibited because poverty is physiologically stressful for children. All children can experience a negative situation during early childhood, but continual negative stress is harmful to development (Blair).

The two final studies on inhibitory control reviewed here are similar and are epidemiological designs. Both studies occurred in the United States among diverse demographic populations. In the Raver, Blair, and Willoughby study (2012), the authors explored maternal age, marital status, education, and questionnaires regarding parent-child interactions. The study began with children 7 months of age and was conducted over 4 years. Raver et al. used statistical methods to test the role of early and chronic poverty-related factors in predicting children's executive function at 48 months of age. The test supported their earlier hypothesis and shows that chronic exposure to poverty and psychological stressors increase a child's reactivity to stimulus in a negative way and decrease learning ability (Raver et al.).

The Ursache, Stifter, Blair, and Voegtline study (2013) mentions the participation of The Family Life Project Investigators which that are mentioned by Raver et al. This represents a shared philosophy and similar methods of the researchers and similar methods (Ursache et al.,

2013). Mother-child interactions were explored by Ursache et al. and regression analysis supports their hypothesis that inhibitory control, attention, and working memory are all influenced by negative interactions due to the emotional factors caused by poverty. The emotional factors are heightened by chaos within the home and can predict academic success prior to kindergarten.

### Working Memory

The final component of executive function covered here is working memory. Working memory stores information and processes linguistic information. Research has shown a strong correlation between working memory and reading comprehension because “reading comprehension depends in part on the capacity of working memory to maintain and manipulate information” (Florit, Roch, Altoe, & Levorato, 2009, p. 936). If a child experiences more spoken language in the home, more connections are made in the prefrontal lobe of the brain which is where executive function is located. Listening comprehension increases vocabulary knowledge, and vocabulary knowledge is one of the best predictors of reading comprehension ability. Therefore, listening comprehension affects reading comprehension which influences all academic areas as a child moves through school (Florit et al.). Noble, Farah, and McCandliss (2006) expressed their views about this topic when they presented strong evidence in their research that suggests that SES is predictive of decoding single words and nonsense words as well as of reading comprehension.

Norm-referenced testing is used in most of the studies in the literature research. The norm-referenced testing utilized most often is the Peabody Picture Vocabulary assessment that determines the language abilities of preschoolers (Dunn & Dunn, 2007). This test is

administered at the beginning of the studies about preschool language development. If an intervention is provided to increase language skills, the test is administered after the intervention, and scores are compared. Statistical correlations are then implemented to determine the effectiveness of the intervention. In one study by Neuman and Roskos (2005), preschoolers participated in book readings with an adult, and the Peabody assessment was administered afterwards. In another study by Spencer and Slocum (2010), vocabulary knowledge was measured in three ways: (a) standardized receptive and expressive vocabulary tests were given pre- and posttreatment (Dunne & Dunne, 2007), (b) a researcher-made comprehensive vocabulary assessment is given pre- and posttreatment, and (c) weekly measures are developed consisting of a smaller version of the large researcher made assessment that was book-specific and administered before and after weekly reading sessions. In both the Neuman and Roskos (2005) and the Spencer and Slocum (2010) studies, data were compared using MANOVA, ANOVA, and HLM. Both studies support the hypotheses that interventions that utilize book reading and receptive language successfully increase working memory and vocabulary acquisition for students living in poverty.

Several other studies provide compelling evidence that delays in working memory and receptive language hinder the comprehension abilities of students from a low-SES environment. Both the Kiernan and Mensah study (2009) and the Schady study (2011) involved mixed methods to extrapolate their data. The Kiernan and Mensah study involved poverty, maternal depression, and the effect these factors have on cognitive development. The Schady study researched maternal language and its relationship to cognitive development. The Kiernan and Mensah study was very large and included 18,819 infants living in England, with a large representation of minorities. The Schady study, like the Kiernan and Mensah study, transpired

in another country, Ecuador, but the numbers of participants was much smaller (79), and participants were homogeneous. In his study, Schady collected baseline information through a survey of the infants' mothers. A follow-up survey was conducted 36 months later. Schady concluded that the cognitive development of a child was influenced by the vocabulary usage of the parent. Low vocabulary usage decreases narrative ability and comprehension ability. Schady indicated that narrative ability is a product of executive function and a predictor of a child's future comprehension skills. The Kiernan and Mensah study further supports this result. Despite differences in participants, both studies support the hypothesis that poverty, and the language and mood of the caregiver, influence narrative ability and working memory of young children.

Poverty's effect upon narration and working memory was further explored by other researchers. Spencer and Slocum (2010) explored story retelling and the personal story generation skills of preschoolers from low-SES backgrounds after the children were given a narrative intervention. Only a small number of participants were investigated. In the Spencer and Slocum study, too few participants created generalization difficulties: only five of the original 19 selected were monitored throughout the duration of the study. The study, however, provides considerable information on narration. The topic of narration is an area of early childhood that has insufficient documentation because it is most often studied in older children. The ability for a young child to narrate, or retell, is critical to the prediction of reading success, however.

### Language Development

Language development has been researched substantially over the past decade.

Researchers have explored the many factors that thwart the language development of students who live in poverty. An impoverished child's language acquisition includes not only conversations and interactions between the child and caretakers (i.e., joint attention) but also interactions with the surrounding environment in which the child lives. The environment can create feelings of safety or insecurity, and a small child adapts to his or her environment using the skills acquired during infancy. This factor suggests that underdeveloped language is the product of an unsafe or insecure home environment (Marulis & Neuman, 2010).

Language development can affect reading ability in two important areas: code-related and oral language skills (Marulis & Neuman, 2010). Code-related skills are important in the initial phases of learning to read that require letter and sound correspondence and fluency skills. The oral language component, however, becomes increasingly more important as reading success becomes dependent upon vocabulary acquisition and narrative skills. Students from poverty can lack the initial skills necessary to accomplish the primary components of reading: phonics and phonemic awareness, otherwise known as decoding, but most of these students will master them in the primary grades (Marulis & Neuman, 2010). Once students move from learning to read (i.e., decoding) to reading to learn (i.e., oral language), however, significant learning gaps become apparent. Therefore, vocabulary and narrative skills are explored in the literature because these components are critical throughout school and are the areas which create the biggest learning gap between children from a low-SES environment and other students (Marulis & Neuman, 2010).

Susan Neuman, a researcher who has researched poverty and early childhood literacy skills, writes extensively about this problem. Her research indicates that the gap between students from poverty and middle-income students becomes most apparent in Grades 3 and 4

when letter and sound correspondence (i.e., learning to read) has been achieved by nearly all students. The real gap occurs when students begin reading to learn and higher order thinking skills, procedural skills, vocabulary knowledge, inference ability, evaluation, and narration are paramount to reading success (Marulis & Neuman, 2010).

Executive function affects a child's ability to employ organizational skills that aid in comprehension and oral language affects a child's comprehension skills. Both components are vital to reading success but children who live in poverty often suffer when their home environment affects the development of executive function and language growth.

### Receptive and Expressive Language

Language development is scaffolded with listening skills developing first, speaking next, then reading, and finally, writing. Receptive language, or listening, occurs during infancy and within the bonding process between a parent and child. The child will understand language before he or she starts speaking as a toddler. As the child matures, he or she can repeat what has been heard. The language heard in the home becomes the language spoken by the child. Vocabulary shared through conversations and reading books is stored in the child's working memory which develops and grows. Working memory is later demonstrated when a child is able to repeat the details of a story in a process called narration. Spencer and Slocum emphasized the importance of narration in their study when they stated, "Narration, or storytelling, is defined as orally presenting causally related events or an event in temporal order" (2010, p. 178).

### Chaos and Poverty

One environmental factor that hinders a child's language acquisition is chaos within the home. Chaos is defined by Vernon-Feagans et al. (2012) as uncontrolled, unstructured, and unpredictable activity with high levels of stimulation. The authors further identified two components of chaos: instability and disorganization. Instability in the environment includes household moves, the number of people transitioning in and out of the home, and changes in parental figures. A disorganized home encompasses ambient noise in the residence and neighborhood, television noise, household crowding, and a lack of structure and routines. (Vernon-Feagans et al.). A child who lives in poverty often experiences both instability and disorganization. A combination of both components deeply interferes with language acquisition.

The study by Vernon-Feagans et al. (2012) investigated the factor of chaos. The level of chaos in the home, language development, and parenting were assessed in a discreet fashion. The authors clearly outlined their methods of research by delineating the manner in which participants were chosen. Because consistency was paramount for conducting this complex, 3-year longitudinal study, the researchers adhered to specific procedures whenever interviewing, observing, and assessing participants. Once data were collected, the researchers compiled them using quantitative procedures and depicted the results on easy-to-read graphs and charts. Analyses occurred in three phases beginning with principle components and exploratory factor analysis, followed by regression models. The third test, a path model, was used to determine whether parenting was a mediating factor with regards to chaos and its effect on language development. To add to this knowledge, Vernon-Feagans et al. concluded that chaos within the

home may override the contribution of SES and parenting. The research suggests that chaos during a child's first 3 years of life may play a bigger role in diminished language acquisition and that household disorganization could predict a child's language development.

### Parental Stress and Poverty

The environment in a low-SES household not only has consequences for a child but also the parent. Parental stress is an additional dynamic that permeates much of the research on language acquisition for young children in poverty. Parenting stress can influence both a child's receptive and expressive vocabulary. The quality of parent-child interactions during early childhood can predict a child's performance on comprehension tasks later in school (Noel, Peterson, & Jesso, 2008).

Economically disadvantaged preschoolers, according to Noel et al. (2008), reside with parents and caretakers who often suffer from stress and depression. Parental emotions are heightened due to a lack of monetary funds, economic resources, transportation, affordable housing, support, and to the presence of violence. More often than not, single parents are raising the children, which creates a tremendous burden upon the lone adult heading the family. More positive interactions between the caregiver and child will increase both receptive and expressive language in the child, but a parent who suffers from stress and depression may not be capable of providing warm interactions (Salley & Dixon, 2007).

The stress and depression of a caregiver can place the child in harm's way through neglect and an absence of conversation. Parental stress fractures the relationship between a parent and child. Most interactions become negative and sometimes harsh discipline techniques override any attempts to talk to the child. Parental stress can also override a child's

attempts to interact with a parent due to fear. As Vernon-Feagans et al. (2012) wrote, “It is not stress in itself that affects children, but rather, stress seems to affect parent-child interactions” (p. 341).

### Child Temperament and Poverty

In addition to parenting stress, a child’s stress can also hinder communication. Researchers have explored the innate characteristics within a child that can hinder language development because of the child’s temperament. A child can be born with innate characteristics that cause a difficult temperament, but the stress of a caregiver can also influence a child’s temperament. Higher parenting stress has been associated with more parental reports of difficult child temperament, and since poverty creates more stress, more children living in poverty display a difficult temperament (Vernon-Feagans et al. 2012).

Similar to the Vernon-Feagans et al. (2012) study on chaos mentioned previously, the Salley and Dixon (2007) study was longitudinal, yet their participants were from high-SES families. The purpose of their study was to explore the effect a child’s temperament has upon joint attention (i.e., shared focus of two individuals on an object) and thus language development. A child’s temperament can cause additional stress for a parent that impedes positive interactions and diminishes language development. The result of the study supports Vernon-Feagans et al.’s in that the stress level of the caregiver is an important factor in the language development of a young child and can ultimately influence a child’s reading potential.

Joint attention was defined by Salley and Dixon as, “engaging in eye to eye gaze with social partners” (2007, p. 133). There are two categories of joint attention: a) responding to joint attention (RJA) by following the direction of the partner’s eye gaze, head turn, or pointing

and b) initiating joint attention (IJA) by pointing or looking at an interesting object or event while alternating gazes between the partner and the object. In fact, vocabulary acquisition begins during this process. An infant will look at an object while a partner states the name of the object. The partner can add to the vocabulary by using descriptors to elaborate about an object's appearance or usage. The complete range of joint attention skills occurs between 12 and 18 months of age. (Salley & Dixon, 2007).

According to Sally and Dixon (2007), behavioral control systems (i.e., levels of control that are based upon temperament) within a child can influence the ability to process language. If a child is crying or upset frequently, then language development will become impaired. A child's receptive language will be inhibited along with the child's ability to gain new knowledge. The result of less positive interactions and less frequent joint attention will be poorer language development (Salley & Dixon).

In contrast to the Salley and Dixon (2007) study, the hypothesis of the Noel et al. study (2008) was to explore a child's temperament and its effect upon joint attention in low-SES families. Standardized, norm-referenced assessments were given in the study which makes it simple to replicate, but all participants were Caucasian which does not reflect the demographics of poverty throughout the United States and may hinder the ability to transfer the results to other settings (Noel et al.). The results of the study support the researchers' hypothesis that a child's temperament can indeed affect language development and eventually reading ability.

## A Meta-Analysis of Language Development and Poverty

Susan B. Neuman is a prolific researcher on early childhood and language development for impoverished children. Two of her articles in this review include observations in classrooms and a meta-analysis of previous literature. Her study with Marulis (2010) explored whether vocabulary training of preschool teachers can improve the outcomes of children from low-SES environments. The purpose was to explore whether the achievement gap can be narrowed by increasing receptive and expressive language through vocabulary acquisition. Their study included training coders and seeking the feedback of experts in the field. Sixty-four articles were studied and coded. Of these, only 70% were from peer-reviewed journals which is a weakness of the study. In total, 5, 929 students were studied. This sample is too large. Two thirds of the studies used standardized testing and one third used “author-created measures” (Marulis & Neuman, 2010). The studies should have had specific characteristics that were the same: standardized testing and peer review. This would have reduced the sample size and made it easier to compare when the studies were similar. Regardless of the methods used, the researchers uncovered studies that further highlight the need to address the literacy skills of students in poverty.

According to Susan Neuman, the discrepancy between the level of school readiness of students from the highest SES and the lowest SES is staggering. Material resources, such as books, are unavailable to children who live in poverty. Students from the lowest SES experience 25 hours of having books read to them before kindergarten compared to the one million hours that children in the highest SES homes experience. In addition, children in the lowest SES homes accumulate 13 million experiences with words. In contrast, students from

the highest SES accumulate 45 million experiences with words (Neuman, 2003). In her study, Neuman relied upon past research to support her statement that students from poverty lack the vocabulary and thinking skills required to be ready for school and that the gap between socioeconomic levels spreads as students move through the educational system (Neuman, 2003). Neuman proposed that preschool programs become longer in order to address the gap earlier in children's lives. She provided background knowledge about this topic but did not clearly target the lessons students should be taught at this age. In addition, she did not discuss the vocabulary gap that exists prior to the typical preschool age of 3 or 4. Previous studies reveal that the gap begins in infancy, so Neuman's study includes incomplete information about language development.

### Conclusion

The literature review provides substantial evidence that students from low-SES backgrounds possess inadequate language skills, coping mechanisms, and problem-solving skills when entering kindergarten. Insufficient language skills hinder a child's ability to proceed through the consecutive stages of reading which include decoding, phonemic awareness, fluency, vocabulary, and comprehension. The home environment affects brain development and executive function. As described by the literature review, poverty's, language development and brain development is complicated, and reducing emergent literacy skills to one factor is impossible. The fact that the reading skills of students living in poverty continues to be inferior to those of students from higher SES environments underscores the need to continue research about poverty's relationship to emergent literacy.

Poverty has a detrimental impact on the lives of children. Not only does poverty impact the present quality of life it also impacts the future quality of life. The literature review has presented evidence that poverty creates complex situations for parents and children alike. Poverty affects material resources, language supports, and human and social capital. Poverty creates an environment that puts emotional and physical burdens on children. Poverty can place families in isolation from a support network. Poverty can initiate stressors for families that place children at risk.

My dissertation does not include a program for ending poverty or a program that will end illiteracy. Its main aim is to provide knowledge and add novel findings to the current research. The hope is that the information I add to the current literature will inspire a movement to end childhood illiteracy by increasing vocabulary and comprehension skills.

## CHAPTER 3

### METHODOLOGY

The purpose of this study was to explore the vocabulary development of three preschool children from low-income homes. The participants included three preschoolers and their mothers. Qualitative methods were observations of the participants and settings, interviews, and document collection was employed. According to Mertens (2015), “Qualitative methods allow a researcher to get a richer and more complex picture of the phenomenon under study than do quantitative methods” (p. 277). The methodology used in this study has seven parts: research question, research design, demographics, cases, data collection, data analysis, and limitations.

#### Research Question

This qualitative study was devised to answer the following research question:

How does the development of executive function and language for a preschooler living in poverty influence vocabulary acquisition and early reading skills?

#### Research Design

This study was designed to answer the research question as deeply and meaningfully as possible. Thick description allowed me to present as much data as possible. Mertens (2015)

defined thick description as “extensive and careful description of the time, place, context, and culture” (p. 271). Mertens stated that thick description allows the collected data to be transferable to other studies and allows a reader to make judgments based upon the copiously documented findings. More specifically, Robert K. Yin (2013) provided the reasons why qualitative research was chosen for this type of study: (a) Qualitative research involves studying the meaning of people’s lives under real-world conditions; (b) It represents the views and perspectives of participants in a study; and (c) Qualitative research covers the social, institutional, and environmental conditions of the participants’ lives (p. 8). Qualitative research provided an in-depth study that allowed me to discover the emotions and experiences of individuals in their natural setting. The evidence collected was presented in clear detail through qualitative means.

For the purpose of this study, I chose qualitative research in order to explore and describe the language usage and environment of young children and their parents who live in poverty. In addition, this study explored the adversity that a young child growing up in poverty endures. Because this study explored people, the environment, and the societal constraints of poverty, qualitative design was most appropriate for this type of research. Therefore, I presented events that promoted the need to address an under-addressed population, thus eliciting a transformative paradigm. The voices of the participants, who were marginalized through poverty, were heard. Power inequities in society were recognized through the stories of the participants. Thick description of the three case studies provided transformative viewpoints. The results of the research would hopefully spark action to improve inequities by empowering the oppressed (Mertens, 2015, p. 33). According to Seidman

(2013), “Those who read the study can connect to that experience, learn how it is constituted, and deepen their understanding of the issues it reflects” (p. 54).

### Demographics and Sampling

In order to deepen understanding of the phenomena, I carefully and systematically planned out the sampling methods before the study began. The people to be interviewed and observed, along with the documents to be collected, existed in a setting that produced fruitful outcomes for me. The setting presented me with participants similar to the individuals encountered in previous literature while also allowing new characteristics of the phenomena to evolve through their stories. As an employee of a west suburban school district that served a community that suffered from high poverty, I had encountered a significant number of children who struggled with reading, especially in the area of vocabulary. I therefore chose a similar suburban community in which the number of children who entered kindergarten with an underdeveloped executive function and inferior language skills was much higher than in nearby cities and towns. This community was familiar to me because I lived in close proximity to the participants. Therefore, this community, Midwest USA (a pseudonym used to provide anonymity), was the location for this study.

### Background of the Community

This study focused upon the preschoolers and their parents who resided in Midwest USA. With a population of 197,899, this suburb was one of the most populated cities in Illinois. The largest racial/ethnic groups were White (59%), followed by Hispanic or Latino (41%). In 2017, the median household income of the Midwest USA (pseudonym) residents was \$59,019.

However, 21.5% of Midwest USA residents had household incomes below \$25,000 (U. S. Census Bureau Quick Facts, 2017).

The Midwest USA public school system consisted of two high schools, four middle schools, 10 elementary schools, and one preschool. The total enrollment was 12,638 students. The mobility rate of learners was 9%. In 2016, only 22% of the students in District Midwest USA met standards on a standardized assessment, and the graduation rate was 77%.

### Background of the Facility

The preschool, from here on known as Early Growth (a pseudonym), was designed to meet the needs of young children from Midwest USA who qualified for the services provided. Early Growth cared for and educated children from birth to age 6 whose families lived below the poverty line. It offered educational, nutritional, health, and parent-involvement components.

Three preschool participants were observed in the Early Growth facility in order to explore the relationship between executive function, language usage, and vocabulary development. If early childhood education created a classroom environment that increased the development of executive function and utilized language-based instruction, then perhaps the playing field would be leveled when children from impoverished homes reached kindergarten. The facility, however, was not the focus of this study but was the locale for the observation of the children participants.

### Sampling

Data were collected by first gaining access to the preschool. A phone call was made by me, explaining the purpose of this study and then asking for a follow-up visit to introduce myself to the principal. When approval was given to observe children at the facility, it was followed-up in writing. During a follow-up visit, paperwork detailing the purpose of this study was presented to the principal (see Appendix A). This same paperwork was also given to the three adult participants.

I formed relationships with the key informants: the principal and the director of the Parents And Children Together (PACT) program. Both were knowledgeable about the program and the community. Through these relationships, I identified individuals who could serve as participants in this study. This type of sampling is called snowball sampling because the relationships formed with the key informants lead to other relationships (Yin, 2011).

The children and parents affiliated with the Early Growth facility strongly represented this study's demographic of interest: impoverished families (Yin, 2011). The facility provided access to preschoolers and parents of the specified demographic. Participants were identified through purposive sampling. "The goal or purpose for selecting the specific study units is to have those that will yield the most relevant and plentiful data, given your topic of study" (Yin, 2011, p. 88). Intensity sampling was used as a type of purposive sampling. It required that I discover participants in a locale that offered greater opportunity than locations with a higher SES. It led to my decision to use the Early Growth facility situated in a western suburb of Chicago.

Permission was given to access the parents and inquire whether they would like to be part of this study. Contact with participants was initially done in person at the facility. Contact with the parents later led to contact with the children.

### Cases

I conducted a multiple (sometimes referred to as comparative) case study involving three impoverished parents and their preschool children. According to Yin (2009), multiple case studies, as opposed to a single case study, provide the opportunity for replication and add more validity to research. As Yin stated, “Each case must be carefully selected so that it either a) predicts similar results (a literal replication) or b) predicts contrasting results but for anticipatable reasons (a theoretical replication)” (p. 54). Yin indicated that two or three case studies would provide literal application, and that was what my study entailed. In addition, the case studies were holistic because they did not include any quantitative data.

### Participants

Six subjects participated in this study. Both male and female individuals served as participants. In order to promote trust with the parents, I provided both verbal and written detail regarding this research study (see Appendix A). The ages of the selected preschool children were between 4 and 5 years. Three children were chosen to participate along with their mothers. The ages of the parents ranged from 24 to 33 years. The parents were unmarried mothers who lived with their boyfriends. The anonymity of all participants was protected through the use of pseudonyms. Each parent and child group were identified as Family 1,

Family 2, and Family 3. The child within each family was identified as Tomas, Luka, and Sofia. Each parent was identified as Isabella, Ana, and Sofia.

### Data Collection

In qualitative research, Mertens (2015) stated,

Instead of using a test or questionnaire to collect data, the researcher is the instrument that collects the data by observing, interviewing, examining records, documents, and other artifacts in the research setting or by using some combination of these methods. (p. 378)

Data were selected by me in order to answer the research question. The forms of data chosen were believed to provide the most information based upon findings in the review of literature. The three sources utilized to collect information were observations, interviews, and documents. The timeline for collecting all data is reviewed in the next few paragraphs and is depicted in Table 1.

### Pilot Study

Before beginning the formal data collection process, I conducted a pilot study. I was not an expert, so a pilot study was necessary in order to gather peer feedback prior to going into the field. I tested the interview instruments and procedures to be used. According to Mertens (2015), “Pilot studies are often necessary in qualitative studies to help provide a framework and develop interview questions” (p. 469). I requested the support of the 5 teachers who were then employed, or who had been employed, in an impoverished community. These teachers assisted with designing the interview questions. Because of their expertise in emergent literacy, they

Table 1

## Data Collection Timeline

Data tool	Length (and amount) of collection periods	Location	Date
Observation of Tomas and Luka	60-90 minutes for each child participant	Early Growth facility	Winter-spring 2017
Observation of Tomas, Luka and Sofia	60-90 minutes for each child participant	Early Growth facility	Winter-spring 2017
Observation of Tomas, Luka, and Sofia	60-90 minutes for each child participant	Early Growth facility	Spring 2017
Interview of Isabella	2 hours	Early Growth facility	Winter-spring 2017
Interview of Ana	1.5 hours	Early Growth facility	Winter-spring 2017
Interview of Ynez	2.5 hours	Restaurant chosen by the parent	Spring 2017
Observation of family 1	1 hour each	Early Growth facility	Winter-spring 2017
Observation of family 2	1 hour each	Early Growth facility	Winter-spring 2017
Observation of family 3	1 hour each	Early Growth facility	Winter-spring 2017
Document collection	Ongoing	Early Growth facility, public records, and family records	Spring 2017

assisted with my observational strategies when critiquing the language usage and vocabulary development of the Early Growth preschoolers.

### Observations

Hesse-Biber and Leavy (2006) defined four types of observers. For the purpose of this study, the complete observer format was used. This type of observation requires the observer to take notes and blend into the background (Mertens, 2015). Parent approval to observe her child was acquired prior to any observations taking place (see Appendix B). Yin (2011) reminded the observer to refrain from categorizing and paraphrasing when note taking. The language in the observation was written verbatim to avoid making the words become mine instead of the participants'. When describing the environment, heavy details were better than a few and descriptors were without opinion to avoid bias.

Observations occurred at the preschool facility. Two children were observed in the facility for 60 to 90 minutes, on three occasions, over a 3-month period. One child was observed in the facility for 60 to 90 minutes, on two occasions, over a 2-month period. Two children were observed with a parent, on three occasions, over a 3-month period for sixty minutes. One child was observed with a parent, on two occasions, over a 2-month period. Field notes were recorded immediately following the observations to validate the experience while it was fresh in the memory of the observer. The field notes focused upon the setting and the interactions and dialogue between each child and his or her parent. Field notes also reflected my opinions and thoughts, and bias was checked by me (Emerson, Fritz, & Shaw, 2011).

I looked for evidence that denoted that the language growth of the preschool participants, specifically in vocabulary, was hindered by poverty as previous research

suggested. I also explored the environment of each child and each parent/child relationship and how executive function, which controls memory and learning ability, could be impeded in an impoverished environment that suffered from high levels of stress and extreme chaos.

### Interviews

The impoverished environment and language usage was further explored when the parental participants were interviewed. The purpose of this process was to provide in-depth, phenomenological-based information. All interviews were recorded, and each parent provided consent before the interviews were conducted (see Appendix C). Two parent participants were interviewed at the facility and one was interviewed in a location chosen by the parent. Having the children present during the interview process added another layer to the study that enabled me to observe the interactions between each parent and child in a natural setting.

The focus of the interviews was to capture the sincere words of each parent. I understood the importance of being an active listener in order to generate pure responses from each participant. Therefore, a conscious effort was made to maintain silence throughout the interviews, maintain eye contact, and demonstrate interest in each participant's life story (Seidman, 2013).

Each of this study's interviews contained open-ended questions and lasted for one and a half to two and a half hours in order to gain enough information and avoid saturation. The first, second, and third sections of the interview asked each participant to present her life history with regards to background, home environment and parenting. The fourth section asked for each participant to present her educational beliefs. The third section comprised each parent's reflection upon literacy (see Appendix D). I asked each parent to describe daily conversations

with her child, reading activities with her child, and beliefs regarding her role in her child's education. Two of the interviews followed the PACT meetings at the preschool in order to create convenience for the parent. One parent was interviewed at a restaurant as requested by this participant.

### Documents

Evidence in each case study was collected through observations, interviews, and preschool documentation. Documents such as memoranda, checklists, screeners, and work samples were collected. In addition, notes taken during each observation were collected. Documents were used to enhance or supplement the data already gathered. Language performance was assessed using the Ballard & Tighe IDEA Proficiency Test (IPT; 1991). It is designed to assist in the initial designation of 3-, 4-, and 5-year-olds as non, limited, or fluent English-speaking. It also provides information to help place students in the most appropriate instructional program. This assessment was used to determine a child's oral language skills in English prior to placement and was based upon five levels: beginning, early intermediate, intermediate, early advanced, advanced. A PFA grant form was completed to determine child and family history. The three parents in this study completed a child self-help and social-emotional scale. The preschool conducted the Brigance screener to determine the child's age equivalency in academics, language and physical development. There was a cut-off score of 49, and student performance was measured based on this cut-off score. The final assessment used by the preschool was the Teaching Strategies Gold, which predicted a child's progress in multiple areas. For this study, social-emotional, language, Spanish language, cognitive, literacy, and Spanish literacy are discussed. Scores, on a scale of 1 to 10, indicated the skill

level of the child. All applicants were ranked according to their level of need, and this ranking determined priority placement into the Early Growth facility. The neediest at-risk students were accepted first. Categories on the Preschool Program Eligibility Form have point criteria that increase based upon severity of impact upon the child. The final document presented, was work samples. Each parent provided signed consent about the documents collected to the facility on a standardized form (see Appendix B).

When collecting documentation, I attempted to collect complete documents in order to prevent biased representation. Internet articles were avoided as a form of documentation because misrepresentation and editing of the material were likely to have occurred. Yin (2013) stated, "In fact, documents must be carefully used and should not be accepted as literal recordings of events that have taken place" (p. 107). Therefore, documents were carefully collected and used solely to corroborate evidence from the observations and the interviews.

As with the other two forms of data collected in the field, documentation was connected to the interview questions. The interview questions and the data collected tied directly to the research question. Ultimately, the data allowed the researcher to achieve the purpose of the study. If the data did not link to the research question, they would not have been collected in the first place.

### Data Analysis

Qualitative data analysis was comprised of five phases: (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting, and (e) concluding. Analysis was nonlinear, and phases could be repeated (Yin, 2011). As data were collected, mental and physical notes allowed for the future categorization of observations, interviews, and documents. Data from

this study were triangulated using the three sources of evidence in order to increase validity.

Triangulation was an analytic technique used “to corroborate a finding with evidence from two or more different sources” (Yin, 2011, p. 313). Triangulation allowed the data to be combined and categorized for deeper analysis.

### Reflective Notes

I was immersed in the setting throughout data collection. For this reason, reflection upon the findings was seldom noted while in the field. Because the preschool classrooms presented a wealth of observational data, I maintained focus upon the participants while taking observational notes, then reflected immediately after each experience in order to not miss crucial details that had unfolded in front of me. Observations during the PTAC meetings, and the ensuing parent and child bonding activities, required the researcher to observe multiple participants at the same time frame. Data collected during the bonding activities often required me to travel throughout the room to visit and observe each family. Reflective notes were added after the data were collected by me, usually later in the day.

### Analysis of Observations

Data analysis occurred both during and immediately after the fieldwork was completed. The value in analyzing the data while in the field was to “know what to look for and what to quote when you have returned from the field” (Yin, 2011, p. 160). Yin (2011) wrote, “The initial notes taken during the actual fieldwork need to be reviewed and refined on a nightly basis” (p. 155). As such, field notes made during the observations, in what is known as the compilation phase, were continually reread and notes and thoughts were added in the margins.

Observations were then separated into categories (i.e., disassembling phase). Emerson et al. (2011) described this phase: “In coding and memo writing, the author has started to create and elaborate analytic themes” (p. 202).

When notes were disassembled, they were then coded. Open coding allowed categorization. Saldana (2013) suggested creating three columns, which I did. The first column depicted the raw data (i.e., field notes). The second column consisted of preliminary codes. The third column listed the final codes. The columniation was used to categorize the findings. Axial coding placed the data into subcategories. Process coding was used to determine patterns. Data were triangulated with the other two data types. Finally, hierarchical arrays were developed through the use of a matrix.

For the purpose of this study, which aimed to explore executive function and language development in impoverished preschoolers, the relationships between the parent and child and the home environment were paramount. Therefore, specific coding methods were used during analysis. These included emotion coding, verbal exchange coding, values coding, and descriptive coding (Saldana, 2013).

### Analysis of Interviews

Interviews were recorded, and the recordings were transcribed by me. The final transcriptions were stored in my computer when coding began. I shared the interview outcomes with the parent participants in order to increase the validity of the research. Feedback from them was sought but was not provided by the participants.

Because the interviews were recorded, I was better able to make immediate reflective notes after the interviews. Parental trust was nurtured continually and became especially vital

when a parent participant exhibited vulnerability during any parent reflection that demonstrated fear, worry, or sadness. Out of respect for the participants, reflective notes were not immediately taken during these occurrences but were made in the evening after each interview.

As with the field notes, open coding led to categorization. Axial coding placed the data into subcategories. Process coding identified patterns. Hierarchical arrays were developed from the interview data through the use of a matrix to determine patterns. Values coding was appropriate for the interviews conducted in this study. Saldana (2013) described values coding as appropriate for studies that “explore cultural values, identity, intrapersonal and interpersonal participant experiences and actions” (p. 111). Emotion coding, verbal exchange and descriptive coding were also completed.

#### Analysis of Documents

The preschool documents were not collected until May, after all observations and interviews were completed. I retrieved the documents from the principal but did not discuss the contents in detail in order to not sway my conclusions prior to notation and subsequent coding. After the documents were reviewed, reflective notes were made. Because I am an educator who has analyzed performance data for nearly 2 decades, analysis of the retrieved documents was effectively accomplished without outside guidance.

Documents were sorted based upon categories. The analysis of the documents was carefully considered by me. I also examined patterns and inconsistencies in the evidence as a way to determine whether the documents were congruent with the other two data types (Mertens, 2015).

### Triangulation

Data from the document collection were triangulated with the other two data types. The coding and categorization of all three data types were combined, similarities were found, and hierarchical arrays were developed through the use of a matrix. Themes from all three data types resulted from the analysis of the coding processes. The themes led to eventual assertions or theories.

### Coding the Findings to Categorize the Data

All data were carefully analyzed and placed into two categories, behavior and language, to identify evidence that highlights the executive function (i.e., behavior) and language development of the three preschoolers in this study.

### Coding to Identify Evidence of Behavior

I used affective methods, specifically emotion and values coding, to analyze the behaviors of the parent and child participants. Based upon the coding methods presented by Saldana (2013), emotion coding was used to delineate and categorize the emotions captured during my observations and the emotions recalled by each parent during the interview process. I utilized values coding to label the parents' values, attitudes, and beliefs (pp. 105-114). Action coding (also known as process coding) was used during classroom and parent bonding observations. This type of coding focuses primarily on the child and identifies behaviors that illustrate the attributes of executive function (p. 96).

### Coding to Identify Evidence of Language

I used in vivo coding, after the preschool observations and after the interviews were transcribed, to maintain the voice of the participants (Saldana, 2013, p. 91). Language methods were used to analyze and categorize the listening skills, interactions, and conversations in this study. Narrative analysis focused on “the story itself” and preserved the integrity of the interviews with the parents (Riessman, 2002, p. 218). Narrative coding (Saldana, 2013, p. 135) was used during and after observations and interviews. The education and childhood details of the parent participants were highlighted using this process along with parent reflection upon how their experiences have influenced their present-day parenting. Verbal-exchange coding labeled the dialogue and exchanges between the children and peers or parents. The purpose was to interpret the conversations and provide meaning to key exchanges (Saldana, 2013, p. 136). Finally, provisional coding was used for observations, interviews, and documents based upon the findings discovered in the literature review. This allowed me to build upon past research through use of the findings of this study (Saldana, 2013, Pp. 266-267).

### Limitations

Within this research, various limitations hindered the outcome of this study. The relationship with Ana, even after agreement was made to participate, was seemingly not as strong as the relationship with the other two parents. The comfort level of Ana was low as she did not appear completely open during the interview process. As a result, her interview did not last as long as the other two interviews. Another limitation was that once one interview was completed, it was determined that a family did not meet the demographics for this study.

Therefore, another family had to be recruited, Family 3, which shortened the time frame for acquiring the designated information. Because all 3 parents had limited availability, all of the interviews were completed in a single session instead of multiple sessions as previously planned. I was not a member of the demographic to be researched. The racial, economic, cultural, and educational divide between me and the participants created an obstacle towards gaining full access to participants' trust and availability. Finally, the limited time involved for gathering field notes and conducting interviews reduced my ability to acquire as much depth as was desired.

### Conclusion

Chapter 3 outlined the methodology used for this study. Observations, interviews, and documents were utilized to explore the vocabulary development and pre-reading skills of three preschool children from low income homes. This multiple case study comprised parent and child participants and lasted for 3 months at the Early Growth facility in Midwest USA. This chapter emphasized the research question, research design, demographics, cases, data collection, data analysis, and limitations of this study. Chapter 4 outlines the results of the research in this study.

## CHAPTER 4

### FINDINGS

#### The Study, the Researcher, and the Setting

##### The Study

As described in Chapter 3, a qualitative study was created that includes the case studies of three children and their mothers. The findings for each case study are presented independent of each other. The members of each case study were one parent and one child. The collected data used thick description and are presented because they relate to the research question. Each piece of data collected was categorized into groups for each case study: observations of the child, observations of the child and parent together, parent interview, and documentation. Subheadings provide additional structure and allow the evidence to become more easily understood by a reader. The research reviewed in Chapter 2 is interwoven in this chapter to further emphasize the relationship the findings have to previous research. Analysis of specific themes determined through coding and inductive analysis is presented in Chapter 5.

### The Researcher

I am an educator who has worked in a high-poverty school setting. Experience in this setting has required me to demonstrate respect for and develop rapport with individuals who have been marginalized by society. I've spent more than a decade trying to understand the day-to-day challenges that thwart educational achievement and to counteract the overwhelming feelings of insecurity that children express who live in poverty. Respect for the individual and the ability to listen when there is no other assistance available are skills that have benefited me throughout this study. I've acquired note-taking and observational skills during nearly 2 decades, first as a special educator, then as a principal who understands there are always two sides to every story and every story deserves to be heard. These skills have allowed me to build trusting relationships, cautiously gather evidence, and elicit very personal information in a way that illuminates the needs of those who have no voice.

### Description of the Sample

#### The Preschool Setting

The Early Growth facility is housed in a building constructed in the early 1950s. The preschool offers morning and afternoon sessions and preschoolers attend 2.5 hours a day, 5 days per week. The first day of visiting the Early Growth facility presented a diverse community of students who have been determined to be "at-risk" (see definition above). As the review of literature suggests, chronic exposure to poverty and psychological stressors decreases the learning ability of a preschooler (Raver et al., 2012). Student acceptance into the preschool is based upon criteria that have been established through its grant funding. Documents collected

for each child reveals how the students in this study qualified for acceptance and will be discussed in more detail.

Risk factors are considered because Early Growth designs its institution to meet the needs of the neediest students. To determine eligibility, points are assigned to children based upon homelessness, child welfare involvement, Brigance results (i.e., a cognitive assessment), income qualifications, and whether the child has an individualized education program (IEP). Additional considerations include family immigration in the past year, English as a second language, the education level of the parent(s), alcohol/drug abuse in the home, a military parent, and parent incarceration. Vernon-Feagans et al. (2012) revealed that chaos within the home, such as uncontrolled, unstructured, and unpredictable activity, contributes to a child's language acquisition and influences school readiness skills. Additional qualifiers fall under the heading of Preschool For All (PFA), that is designed to address preschool readiness skills for students living in high-risk households (Illinois School Board of Education, 2017). Those qualifiers will also be discussed.

When a child is accepted into the Early Growth preschool program, parents are required by the terms of a grant to attend PACT meetings. Meetings occur one Thursday each month, and parents must attend a minimum of five meetings per year. Speakers from the area are brought in to talk about community resources and to teach parenting skills. When a local speaker is not available, the director teaches lessons designed to increase knowledge about healthy eating and to provide activities that encourage parent and child bonding.

### Recruitment of Participants

I observed four PACT (Parent and Child Together) meetings the first of which presented an opportunity to recruit participants for this study. An unusually warm morning in February helped to ameliorate the uneasy feeling that grew as I parked blocks away from the overcrowded school parking lot. Cars encircled the small brick building, that stood as an island separated from other structures and surrounded by neighborhood streets. As workers greeted family members through car door windows, eager students were escorted by hand into the building. The pale yellow entryway was crowded with a handful of parents asking questions of the workers in either English or Spanish. Smiles were apparent when I stopped at the glass-enclosed office. After signing the visitor log, I walked down escape was made into a long, narrow hallway where many 3- and 4-year-olds took off their backpacks and hung their coats. The yellow walls displayed the name of the teacher within each classroom in addition to a caricature of an animal that labeled the room. One student in the hallway poked the side of another student, then both looked curiously at me. The morning attendees appeared wide-eyed and excited as they lined up to either go outside to the paved playground or into their classrooms.

My destination at the end of the hallway was a large, well-heated room. It was a teacher's lounge but was transformed one Thursday per month to host parents who were required to attend PACT sessions in accordance with the preschool grant. Two certified staff members, one who served as the director of the PACT program, along with various paraprofessionals, greeted parents as they entered the room, signed in, and then took a seat at long, white, plastic tables that were arranged in a rectangle fashion. One table displayed various

prizes that would be given to parents during a drawing. Parents who had attended five sessions would be given a special prize. When the children joined their parents at the close of the session, they were given a new book to take home. The books served as a way to encourage reading at home and enhance kindergarten readiness skills.

The director of the program informed the other staff member that half of the preschool staff had not come to work. Protests concerning the current U.S. president's immigration policy encouraged workers to join a Chicago-based rally during that day. The director was noticeably concerned about the protests hindering participation in the PACT meeting and the preschool's ability to service the number of students in the program that day. This backdrop created an uneasy feeling amongst the employees, but when the parents began to file into the room, the uneasiness subsided as smiling faces and warm greetings allayed the tension.

One parent entered the room and made eye contact with me as I sat a distance away from the parent tables. When this parent was greeted by a staff member, she nodded her head and said, "Hello." She sat with a group of women she appeared to know and began speaking in Spanish. The director of the PACT program waited a few more minutes before motioning to close the door. Another parent scurried into the room and flashed a hurried glance at the director. After she signed in and sat down, she looked towards the stranger in the room and acknowledged me with a welcoming smile. She spoke briefly with the director, revealing a thick accent. As she sat down, no one acknowledged her, and she did not engage in the Spanish-speaking conversations. She appeared hurried and scattered as she looked for a place to put her purse that she eventually placed near her feet. Her interruption reminded me of previous research that suggests that homes in low-SES environments suffer from chaos that includes disorganization, specifically a lack of structure and routines (Vernon-Feagans et al.,

2012). This parent told the director that she did not know how to dress that day because of the weather. Her warm, bulky turtleneck looked uncomfortable and impractical for the crowded meeting that included 33 parents. The director informed me that the number of participants was very low that day, and the meeting usually included more than a dozen additional parents.

Before he began the meeting, the speaker for the day introduced me to the families and asked that I provide an overview of this study. My background, the purpose of this study, and the need for the participation of three parents and their child was discussed. I used humor, friendliness, and approachability in order to put parents at ease. Smiles from the parents and occasional giggles were shared with me as the speaker interpreted the message that this study would provide a voice to the children and families who participate. The protection of the participants with regards to identity was emphasized. At one point, I described myself as, “not intimidating.” The parents laughed, and one of the more vocal parents, who was sitting with many friends, said in broken English, “No, you are not!” This was a breakthrough for me and an acknowledgment of their comfort level, especially from a seemingly popular parent; it gave hope that prospective candidates would be found as a result of this meeting.

The speaker discussed the importance of male role models. He discussed the masculine stereotype he learned about while growing up. Mothers were emotionally there for children, but fathers were not when he was growing up. This message struck a chord in one of the parents who smiled at the speaker at the beginning of the meeting. She told a story in English about her father. He was not able to bond with her like her mother, and his discipline was harsh. Her authenticity during this discussion could make her a strong candidate for this study.

Every PACT meeting concluded with a shared activity and the opportunity to observe parents and children. Vygotsky suggested that to understand a child’s mental functioning, a

person needs to go outside the child and examine his or hers social and cultural origins, language, and thought (1978). I used the shared activity at this first observation to meet parents who appeared the most approachable, would likely yield the most data for this study, and who fit the theoretical replication design (Yin, 2009).

When the teacher's lounge doors were finally opened, the morning session's preschoolers bounded into the room and immediately went to their parents. Once parents were reunited with their children, bonding was encouraged through the creation of a food item or craft. I walked around and began conversing with to determine who was most comfortable with me. The two women who first made eye contact with me continued to maintain a relaxed persona and a welcoming disposition. I approached the parent who shared personal information about her father during the meeting. I asked her if she would be interested in participating in this study. She smiled and said, "Yes, I will participate." Her eyes sparkled, and she displayed a large, bright smile. She was provided with information about this study and agreed to be available for an interview after the next Thursday morning's PACT meeting (personal communication, February 16, 2017).

I walked around to engage in additional parent conversations and eventually approached the parent who came late to the meeting. This parent made eye contact as I approached. She easily engaged in conversation and appeared articulate. A rapport was building with this parent and eventually presented an opportunity to request her participation in this study. The parent agreed and received details and paperwork from me (personal communication, February 16, 2017).

I remained for the afternoon PACT meeting, excited to have found two parents who were approachable, enthusiastic, and demonstrated the characteristics that, research suggests,

influence the development of children being raised in a low-SES environment. Because I did not obtain documents about individual children before the parent meeting, my observations during that meeting provided my only insight into making a participant selection. In the afternoon meeting, I acquired a third parent participant for this study. A subsequent interview, however, revealed that her child was attending the preschool because of a disability and not because of low-SES. I therefore recruited another parent to participate in this study at a subsequent parent meeting. An interview with this parent confirmed that her home environment met the socioeconomic characteristics that are the focus of this study.

The data that follow consist of the case study of 3 mothers and their children. The observations, interviews and work samples demonstrate the influence the home environment has upon the development of executive function and language for preschoolers from a low-SES. Pseudonyms are used to protect the identities of the participants.

### Presentation of the Data

#### Case Study 1: Family 1-Isabella and Tomas

##### Observations of Tomas

Tomas was a 4-year-old who had been attending the Early Growth facility since September. He had not attended daycare or a previous preschool and did not participate in the Parents As Teachers (PAT) program from birth to age 3. Tomas' classroom was labeled The Monkey Room and was located on the second floor of the preschool. The bilingual classroom was comprised of one certified teacher and three Spanish-speaking paraprofessionals. Tables were arranged to create groupings of 4-5 students. Each table was labeled with a student's

name and picture posted on it. A computer center, with two computers and headphones, was centered by the doorway. Other centers existed throughout the classroom. One center was for painting, another center was for building, and a third center was for playing dress-up. Various occupational costumes were hanging on the side of this center that was two-storied. There were steps leading to the top floor of this center where bookshelves displayed age-appropriate books and a cozy seating area. The ground floor of this center has a play kitchen. Behind the kitchen was a carpeted floor for the teacher and students to use for whole-group instruction.

Day 1 observation. The first classroom observation of Tomas began in the morning, after whole-group instruction with the teacher. I took a seat in a child's chair located in the center of the classroom. Students said "Hello" when they noticed me, but Tomas showed no interest in me and never made eye contact. Students moved from the carpeted center to one of four art activities. That day, the 18-student classroom had two absent children, so groups included only four students each. Students were speaking either English or Spanish with their peers. Some students easily switched between both languages. The teacher and three paraprofessionals monitored the groups. Adults were participating with the students. Tomas was painting with a brush. He did not engage in conversation with the other children or adults, but appeared to enjoy using long strokes of blue to paint a picture of himself. When the teacher rang a bell, students were instructed to transition to a play activity. The other children, working alongside Tomas, went to the sink to wash their hands. Tomas did not go with them but wiped his hands on his clothing, leaving blue paint marks. He put his art work on his table to dry.

Three boys approached Tomas, and he spoke to them in Spanish and pointed to a table at the back of the room. This table had two containers: one container had Lego blocks, and another container had plastic bugs and grabbing tools. Tomas played with blocks with the three

boys as another child joined them. Tomas did not allow the newcomer to join the block group, so this student played with the bugs. Another student also left the block activity for the bugs because Tomas took the blocks away from him. Upon seeing this, an adult moved to the table and began playing with the bugs. Tomas picked up a block and said he was building a rocket ship. He placed a block against the face of another boy sitting across from him. He then picked up a piece of paper and threw it at the same boy. The adult at the table was not observed redirecting Tomas. Instead, she started a conversation with the victim. Tomas then resumed building his rocket ship (personal communication, February 23, 2017). According to Blair, a child's experiences during early childhood shape brain networks. His research shows that children in poverty tend to lack inhibitory control, which is a component of healthy executive function development (2012). Inhibitory control allows a child to perform less desirable tasks and control negative reactions. Tomas was aggressive with a peer and appeared impulsive to me.

Day 2 observation. At the second observation of Tomas, students entered the building in a line. Children hung up their coats in the narrow hallway, then formed two lines according to gender. Bathroom breaks were overseen by the paraprofessionals who allowed children to go into the bathroom two children at a time. Tomas, who was much taller than most of the students, was observed turning his back to the adults at the front of the line. He said something to a boy standing behind him and pushed his stomach out and up against that boy. His voice became deeper. Suddenly, he jumped, turned around, and went into the bathroom.

I entered the classroom to sit in an obscure area. Tomas walked to his assigned seat. He picked up a picture at his table and said menacingly to another student, "Look! I drew a monster!" A girl came into the room and sat beside Tomas. He pointed to the girl, then

shouted, “She’s a liar!” I did not see or hear anything that might cause Tomas to have this reaction. Another adult came to his table. Tomas crossed his arms and the girl replied, “I don’t know which one is yours!” She then walked away. Once she left, Tomas moved on from the incident by picking up a marker to draw with.

The teacher began to sing in Spanish. Students started to clean their tables and move to the carpeted area. Tomas followed the routine of cleaning up and put his art work in his cubby. Students sat on the carpet in front of their teacher. The teacher had a puppet on her hand, and in an animated and engaging manner, she asked the children to say “Hello” to it. Smiles were on many faces. When students were instructed to stand, clap, and sing, Tomas merely stood without joining in. Throughout the 20-minute whole-group lesson, he did not once respond to teacher questions or sing with the other students. Tomas moved his eyes from the teacher to the other children throughout the lesson. Once seated on the carpet again, he moved about on his bottom. Tomas appeared disinterested until the teacher stopped singing and began writing on the small, white board. Tomas watched her sporadically. He did not speak and never appeared to participate as his gaze moved from the teacher to the students several times (personal communication, March 23, 2017). Tomas did not appear engaged in the lesson and I wondered if he understood the teacher’s words. According to Sally and Dixon (2007), behavioral control systems (i.e., levels of control based upon temperament) within a child can influence the ability to process language. Tomas’ body movements could have hindered his ability to process the lesson.

Students took a break after 30 minutes. They were given a snack and students took it to their assigned table. Tomas ate his snack without discussion. For the remainder of the Day 2 observation, Tomas followed the procedures already established without incident. Months of

structure had provided Tomas with consistency in the classroom (personal communication, March 23, 2017). The behavior observed on this day suggests continued difficulties with inhibitory control as demonstrated by the aggression of Tomas towards his peers (Blair, 2012). It also suggests difficulties with attentional control that allows a child to maintain engagement, to concentrate on one thing while ignoring others, and an ability to gather new information in order to increase learning (Dilworth-Bart, 2007).

Day 3 observation. The third classroom observation of Tomas began in the classroom but moved into the hallway with another teacher who provided support to students who had high academic needs determined by classroom performance and assessments. This teacher was provided to the preschool through a Title 1 grant and from here on she will be referred to as the Title 1 teacher. Tomas was pulled out of the classroom twice a week by this teacher for reading and math. He joined three other students who were sitting at a table located at the landing between the first and the second floors of classrooms. That day's lesson was to count to 10. The teacher used hand clapping, first over her head once, then out in front of her once. "Uno" she said as she clapped her hands over her head. "Dos" as she clapped in front of her. All children, including Tomas, followed the pattern she started as she counted to 10. The teacher then placed numbers 1 through 18 on the table. She took turns asking each child to provide the name of the number she randomly pointed to. She pointed to number 18 and asked Child 1 the name of the number. He did not respond. She went back to the other students, and they quickly named the random numbers. The teacher asked Tomas, "Donde es numero dos?" Tomas responded and pointed to number 2. Throughout this lesson, Tomas moved about in his seat but followed the teacher's instructions.

This lesson was followed by a coloring activity still at the landing. Students had to color a picture using the crayon color that corresponded to a number. The teacher walked the students through each stage of the picture coloring, and all students, including Tomas, followed her directions. I noticed that Tomas maintained a still composure during this activity. The students were told to write their name on their finished picture. It appeared that the teacher was aware that Tomas would need assistance, so she leaned in to help him. The teacher sounded out each letter in Spanish as he wrote. She said “n” in Spanish, but Tomas did not understand. After additional attempts, she finally wrote the letter “n” for him (personal communication, April 4, 2017). Marulis and Neuman wrote that language development can affect reading ability in two important areas: code-related and oral language skills (2010). Tomas was being taught code-related skills by the Title 1 teacher. In a small group setting, Tomas appeared to have more difficulty with letter and sound recognition as compared to the other children in his group (personal communication, April 4, 2017).

The teacher then walked the students back to the classroom. Once Tomas entered the room, the Title 1 teacher said to me, “He is doing much better than when he started. In the beginning, he could not sit still. He was bouncing in his chair a lot and could not focus.” I was surprised that this information was volunteered and wondered what behavior Tomas displayed when his first exposure to preschool began in September (personal communication, April 4, 2017).

### Observations of Isabella and Tomas

Isabella attended all the PACT meetings that I observed. She came by herself, was prompt to every meeting, and was an active contributor. Isabella interacted with the other parents in a friendly manner and consistently displayed a positive attitude.

Day 1, Isabella with Tomas observation. Play provides a time for parent and child bonding, but parents raising children in poverty often have little time or energy to play with their young children. A lack of playtime with a parent hinders role playing, vocabulary development, and healthy self-esteem (Milteer & Ginsburg, 2012). The opportunity to play at preschool after each PACT meeting created bonding opportunities that may not be available in the home.

The parent who discussed her father, displayed a huge, bright smile and pushed back her long, shiny, dark hair as she filled a baggie with milk and sugar. That day, Isabella and Tomas would make ice cream together by using inexpensive ingredients: sandwich baggies, milk, sugar, and ice. The first baggie filled with ingredients was then placed into a second baggie filled with ice. She was observed telling her son to help. Tomas helped to shake the bag, then left the activity. Isabella corrected her son as she watched him crawl under a table. She looked at me and said, “He does that,” as if needing to apologize. Tomas did not respond to her subtle pleas to rejoin her. He continued to hide under the table for 10 minutes. Tomas smiled at me as his mother completed the activity, but he continued to ignore his parent’s cajoling. Tomas’ inattentive behavior appeared to interfere with this bonding experience (personal communication, February 16, 2017). Healthy executive function development provides a child with the capacity to self-regulate and is a necessary component of task

completion. It is also a component for academic success, as research has discovered a link between executive function and literacy skills (Dilworth-Bart, 2012).

Tomas continued to sit under the table until his mother told him, “It is almost ready.” He quickly crawled out, then took the baggie out of his parent’s hands, and shook it to get the liquid to freeze. After several minutes, the white, fluffy treat was finally ready to be eaten. Tomas was given a spoon and shared the ice cream with his mother.

Isabella was unable to engage her son in the activity. Had Tomas not remained under the table, I would have been able to observe any conversations that occurred between the parent and child. Throughout this observation, Tomas was never observed speaking to his parent (personal communication, February 16, 2017). Oral language, which includes both receptive and expressive language, is first practiced through bonding opportunities in the home (Blamey & Beauchat, 2016). According to Vygotsky, the healthy development of language is paramount for the development of thinking skills, which are reflected in a child’s future reading skills. When a child plays with parents, he or she can be overheard using the language of the parent and acting out the activities that occur in his or her home. Play encourages conversations, increases the bond between parent and child, and enhances language and social skill development (Vygotsky, 1962). Growth in these areas is severely limited when a child lives in poverty.

Day 2, Isabella with Tomas observation. Isabella received a prize on this day because this was the fifth consecutive PACT meeting she had attended this school year. This meeting focused upon discipline. Once again, Isabella was an active participant and added to the varied discussion. Isabella nodded her head when the speaker discussed how transitioning your child between activities was difficult. Isabella would set a timer on her phone to assist with

transitions, but Tomas would then reset the phone so he could get more time. Another parent suggested Isabella use an hourglass during a transition, but Isabella stated that Tomas would turn the hourglass over to have more time. The speaker then talked about having positive bonds with your child to encourage positive behavior by increasing his or her self-esteem. Isabella added, "My grandfather was so affectionate and loving. Better than my mother." This response was meaningful to me. Poverty is often generational (personal communication, February 23, 2017). The parent interview that followed revealed that Isabella grew up in poverty. The stressors of poverty can affect parent and child relationships. The result of less positive interactions and less frequent joint attention is poorer language development (Salley & Dixon, 2007). Isabella may have experienced less frequent joint attention when she was a child. Fewer positive interactions with her mother might have decreased her ability to increase oral language skills as a child and could eventually affect her interactions with her children.

The room was opened up to the morning preschoolers whose parents were in attendance. Tomas joined Isabella for the day's activity. This day's emphasis was upon creating healthy treats that children will eat. The PACT meetings respect the limited finances of parents and introduce projects that can be replicated at home by using inexpensive ingredients. Ice cream cones were passed out. Parents and children filled them with yogurt and apple slices. Tomas spoke to Isabella about how tasty the treats were. He stayed with his mother and did not climb under the table. Tomas and Isabella discussed, in Spanish, which treats they liked the most and which treats they would like to make at home. This day, Tomas and Isabella appeared comfortable. Tomas was engaged, and Isabella displayed enjoyment by remarking how much her son liked this particular activity (personal communication, February 23, 2017).

Day 3, Isabella with Tomas observation. The third observation of Tomas and Isabella included another child. Isabella came to the PACT meeting with a girl she was babysitting. Isabella was joined by Tomas who came into the room without acknowledging the other child. Both children were indifferent to one another. Interaction between Tomas and the girl was not encouraged by Isabella or used as a teachable moment regarding greeting another child (personal observation, March 23, 2017). Social conversation, such as greeting another child, is first taught in the home. Blamey and Beauchat explained that “the ability to know when to use specific kinds of speech depending on the context is known as pragmatics” (2016, p. 12). The way in which context contributes to the meaning of words during conversation is a part of oral language that children learn at a very young age. Mothers in a high-SES home converse with their children frequently. The conversations encourage expressive language, and the parent models appropriate language usage. In a low-SES household, conversations initiated by the parent are few and far between (Rowe, 2008).

The activity on this day involved creating puppets from paper bags and various craft items. Tomas chose the eyes, yarn, and felt he wanted on his puppet. The girl also chose items for her puppet but glued them on by herself while she and Isabella talked in English. The girl responded to Isabella’s questions. Isabella glued Tomas’ chosen items on for him as he crawled under the table. He remained under the table for 10 minutes. I looked around and observed the other preschoolers working beside their parents. I noticed Isabella looking from the project to me as she tried to coax her son from under the table. This day, Isabella seemed less embarrassed than on the previous day while she talked with the other child. Finally, Tomas came out from under the table, chose two color markers, and then began to color his puppet. He

did not go under the table for the remainder of this observation (personal communication, March 23, 2017).

### Interview of Isabella

Isabella was interviewed in a preschool room that was designated for childcare. Because parent attendance at the PACT meetings was required, the siblings of preschoolers could be left in our interview room under the supervision of a daycare worker. To maintain confidentiality and increase the comfort level of the parent, Tomas was the only child allowed in the room during the interview. He was able to have a light snack and occupy himself with the toys in this room, which allowed his parent to concentrate on the questions. This location provided an additional opportunity to observe parent and child interactions and observe the child during playtime.

Tomas was observed interrupting Isabella with loud noises throughout the interview. Trucks were pushed with force as he made car noises. I observed loud play and his quick disinterest in each car and truck he chose. A keyboard was banged on and, occasionally Isabella would stop talking to me and reach for Tomas, asking him to quiet down. Tomas' reaction to the stimulus within the daycare room, the classroom, and during the PACT activity supported the research that stated that chronic exposure to poverty and psychological stressors increases a child's reactivity to stimulus in a negative way and decreases learning ability (Raver et al., 2012).

The interview took two hours to complete, and this was not due to interruptions by Tomas but due to Isabella's thoughtful responses. Isabella spoke mostly Spanish in the home, so her response time may have been due to internally translating her answers before giving a

response. The interview was divided into five sections, and the results are provided below. It should be noted that both during and after the interview, Isabella cried. Memories of her childhood and her fear about the future of her children made her visibly upset. Her status as an immigrant provided Isabella with additional hurdles and added to the limit situations that the conditions of poverty created. Economically disadvantaged preschoolers, according to Noel et al. (2008), are raised by parents whose emotions are heightened due to a lack of support, a lack of resources, the presence of violence, and the inability to find affordable housing. The following responses from Isabella indicate fear and worry over her family's future.

Background. Isabella came to the United States from Mexico when she was 2 years old. Her father worked as a cabinetmaker and her mother stayed at home. She did not work but Tomas' father, her boyfriend, did. He picked up scrap metal for a living. Her parents were born in Mexico and she stated they did not understand "the system" of school when she started kindergarten. Therefore, Isabella did not get help with homework, and school was difficult. Immigrating to the United States created limit situations for her parents, such as language barriers and the ability to navigate the educational system in order to improve the life of their child.

Home Environment. Isabella had two sons with her boyfriend, ages 4 and 5. She had lived at her current address for 14 years (she was currently 26 years old), and she lived with her parents, her boyfriend, her sons, her sister, and three brothers. Her daily chores consisted mainly of taking care of her boys. Her mother cooked and helped with housework.

Parenting. Isabella had her first child when she was 20 years old. Because she babysat other children, she felt comfortable as a first-time parent. Asked if she attended parenting classes before her first child was born, she said she did, but they were not meaningful. She

found the PACT meetings more meaningful due to their realistic approach. She received support from her mother in the form of babysitting, so she could get her high school diploma (i.e., GED). In this way, she was, according to her, able to better herself for her children. Because Isabella did not finish high school, she had a strong desire for her children to finish high school. In fact, when prioritizing what she believed was most important for her children, she said unequivocally, “education.” Another goal for Isabella was to remain in her current home. She made it clear that she did not want to have to receive money from the government again, because she had previously lived in government-funded housing and she did not like it. When asked about whether she had time for just herself, she said she socialized by going to a nightclub with her cousins on the weekend. Outside from her immediate family, Isabella received minimum support. In her neighborhood, she stated there were different races, but everyone looked out for each other. When asked if there was something she wanted to provide for her son but could not, Isabella answered, “Mm. Not really, but the other stuff that is going on right now with the president and stuff (she then began to cry). That’s the hard part. I wouldn’t want to leave my kids.” I waited for more clarification, but Isabella continued to cry.

Due to confidentiality and the vulnerable position of Isabella, I cautiously moved away from this topic to a discussion regarding living arrangements. Isabella, her boyfriend, and children lived with her parents, so she considered her father to be the head of the household. Her father paid the bills, kept a roof over their heads, and helped her boyfriend get a job collecting and selling scrap metal. Isabella stated with conviction, “If he didn’t help out my boyfriend, we would probably be living in the apartments that the government gives you, and I don’t like that environment for my kids” (personal communication, February 23, 2017).

Educational Beliefs. Isabella's biggest goal for her and her family was to obtain her GED. After this achievement, she wanted to become a teacher. Her goal for Tomas was to help him with his behavior. She described Tomas as "very rebellious and a troublemaker." Before he would attend kindergarten, she wanted Tomas to know the alphabet and to "count better." Her other son was in kindergarten now, and he was not prepared for it. Isabella remarked that she spent time helping him catch up, and he had improved. Because of his experience, she put more time into both children. Isabella said she knew the kindergarten expectations, but they were not the same as in the preschool, and this would make it difficult for Tomas because of his behavior issues. About Tomas, she stated,

You tell him not to do something, he does it. I think he has ADD or ADHD. Like at home, he is different from school. If you tell him not to do something, he will punch you or hit you. I see he is different from other kids. (personal communication, February 23, 2017)

A child's temperament can cause additional stress for a parent that impedes positive interactions and diminishes language development. Vernon-Feagans et al. (2012) suggested that the stress level of the caretaker is a negative factor that influences the language development of a young child and can negatively influence the child's reading potential.

Literacy. Daily, Isabella received notes from the preschool about her son's behavior. Notes sent to her at home said, "He doesn't listen, and he bites." Isabella understood that her son's behavior affected his ability to learn and eventually to read. The activities within the home were discussed during the interview to determine possible factors that might hinder Tomas' access to oral and written language opportunities. Marie M. Clay (2015) wrote, "It is not surprising that children who have not been active in exploring what they can do with language should have more difficulty with reading than other children" (pp. 37-38). When he

was at home, Tomas watched television, but Isabella watched it with him. She read with him every night before he went to sleep. Sometimes, he sat on her lap, and sometimes they laid on the bed together to read. She knew that he enjoyed books because he asked questions about the stories. There were only a few books in the home, but Isabella took Tomas to the library twice a month. She read for enjoyment when she had the time. She kept her personal books in a drawer by her bedside and preferred to read only biographies and nonfiction.

After the interview, Isabella cried again. She told me that high school was difficult for her, and that was why she never graduated. She said she experienced prejudiced staff members at her high school and said that the Black and Hispanic students were not treated as well as the White students. She did not experience equality, and that is why she dropped out. Isabella's ethnicity presented her with a limit situation that prevented her from having a positive high school experience. Susan Neuman (2008) acknowledged that children who live in poverty have more negative school experiences and significantly higher dropout rates than middle and higher income students. In Isabella's case, prejudices against her added to her risk as a student (personal communication, February 23 and March 23, 2017).

### Documents for Tomas

Prior to acceptance into the Early Growth facility, Tomas was screened to determine individual challenges. The results of the most recent assessments are presented. The final document presented is work samples.

Preschool Program Eligibility Form. The primary caregiver of Tomas did not complete high school or have a GED. English was not the primary language spoken at home. Tomas had no previous childcare or preschool experience, multiple families lived in the home,

and it was a low-income household. A health screening revealed that there were no hearing or vision concerns based upon an assessment conducted by the preschool's nurse.

Child and Family History. Both biological parents lived in the home, but were not married. Grandmother, grandfather, an aunt, three uncles, and a brother also lived with Tomas. Spanish was the language spoken in the home. Isabella indicated family unemployment and an inability to meet basic needs. Parents received additional financial support through food stamps and publicly funded medical assistance. Regarding specific concerns, Isabella listed Tomas' hyperactivity and his failure to listen to adults.

Tomas' self-help and social-emotional scale. Self-help skills for Tomas were indicated age-appropriate. Social-emotionally, Isabella denoted that Tomas struggled to maintain focus on an activity and had difficulties with accepting disappointment or refusal. Play and relationships with peers (i.e., sharing and turn taking) could sometimes be difficult.

IDEA Proficiency Test. Results from the assessment of oral English for Tomas, who was assessed to be performing at the age of 3 years and 9 months, revealed limited English-speaking proficiency. For oral Spanish, Tomas was assessed to be performing at the level of fluent Spanish-speaking.

Brigance Screener. Tomas' academic/cognitive score revealed an age level of 2 years and 6 months. His language development score was 2 years and 8 months. This screener was administered when Tomas had a chronological age of 3 years and 9 months. He was below average in physical development. At the time of this assessment, he could not repeat sentences, recognized no colors, used irregular plural nouns, and no prepositions, and could label half of the objects presented to him.

Teaching Strategies Gold. Tomas, on a scale of 1 to 9, scored lowest in the social-emotional and Spanish-literacy categories. In the social-emotional components, Tomas scored a 2 in managing feelings, balancing the needs and rights of self and others, and solving social problems. The average score of these three components for other preschoolers his age was 6. Tomas' performance supported the research that states that managing feelings is a component of executive function. Children who develop in a household with higher SES demonstrate more self-control than a child who is being raised in poverty (Garon et al., 2008). Tomas scored 1 in Spanish literacy in the following categories: discrimination of sounds, identifying letters and sounds, using emergent reading skills, and retelling stories (i.e., narration). Oral language development consists of phonology (i.e., identifying letters and sounds), syntax (i.e., language rules), semantics (i.e., word meaning), and pragmatics (i.e., social language). Tomas scored 2 for interacting during read-aloud time and book conversations. The average preschooler his age scored 4 in these categories of Spanish-literacy. A child who is unable to appropriately narrate (i.e., orally present causally related events in a temporal order) will struggle with comprehension which affects all academic areas throughout school (Spencer & Slocum, 2010).

Work Samples. Tomas was recommended for Title 1 (see definitions) services based upon classroom performance and teacher assessments. In September, the beginning of preschool, Tomas knew 0 upper-case and 0 lower-case letters. By May, Tomas demonstrated recognition of 6 upper-case and 4 lower-case letters.

## Case Study 2: Family 2-Ana and Luka

### Observations of Luka

Luka was a 4-year-old who had been attending the Early Growth facility since September. This was his first year of preschool, he had not been in daycare previously and he had not participated in the PAT program from birth to age 3. Luka was a member of the Dinosaur classroom and attended in the morning. The classroom was located on the first floor. Children sat at assigned tables that were marked with their names. There was a computer center, an area for painting, and one for pretend play. A large carpeted area was to the right of the doorway. All students in this classroom spoke English as their primary language. There was one certified teacher and one assistant.

Day 1 observation. Children transitioned from hanging their coats in the hallway, to sitting at their assigned classroom table at the start of the day. The teacher greeted each student by name as he or she came into the room. Children were talking and appeared excited to see one another. One student, Luka, responded positively to the teacher's greeting but did not engage with the other children. He appeared happy to be at school, as he sat with hands clasped as if to control his eager demeanor. Luka waited patiently, and when the teacher called the class to the carpet through a welcome song, he responded immediately. The teacher sat on a chair, and the 18 students quickly moved to the carpeted area in front of her and sat on the floor. Another adult, a paraprofessional, sat on the floor behind the students and beside a young boy who she oversaw.

Students were seated on their bottoms with legs crossed. Luka alternated from this position to sitting on his haunches. His eyes were on the teacher as his body moved about.

Throughout the lesson, Luka was an active participant. He was observed shouting out the answer to teacher's questions and was reminded to raise his hand. Luka's answers were incorrect most of the time. He could be heard many times saying, "Me, me" as the teacher looked to call on a student during their counting exercise.

The noise level in the classroom was great, so the teacher reminded the students, "You're going to wake the caterpillars if you're not quiet." Caterpillars were in a butterfly container in the middle of the classroom and would eventually wake up as butterflies. Silence ensued except for a few students heard shushing one another. Luka had yet to be observed engaging with another student. Some children looked at one another, and when the teacher began calendar time with a song, children were observed clapping hands together. To add an additional layer to the learning, the teacher read about butterflies. All students sat quietly and listened as she read. She paused throughout the story to ask questions about what students thought would happen next. Luka blurted out his answers without raising his hand. His lack of inhibitory control seemed evident this day (Dilworth-Bart, 2008). Luka turned around three times to see me and waved with a big smile. He remembered seeing me at the PACT meetings. I eventually left this observation early due to the distraction I caused to Luka (personal communication, February 23, 2017).

Day 2 observation. This day, the students reviewed the colors in the spectrum. The teacher discussed rainbows, and it appeared that this was a topic that has previously been discussed. Seated on the carpet, students listened as the teacher read "The Mixed-Up Chameleon" by Eric Carle. The teacher showed the students other books they have read by this author, and there were conversations about what each book was about. Again, Luka repeatedly turned around to look at me, seated at the back of the classroom. He waved, then

Luka was redirected by the assistant to turn his eyes to the teacher. The teacher told the students, “Voices off!” The teacher talked about the colors of the rainbow at the end of the book as students reflected on the everchanging chameleon in the story. The teacher pointed, and the students responded, “Purple!” Luka corrected the class and said, “That’s indigo violet!” The teacher moved forward with the next part of the morning lesson, a science experiment. She told the class, “We are going to make a special color!” The students and Luka gasped with excitement. He could be seen placing his hands upon his mouth with wide eyes. The teacher took a sandwich baggie and filled it with shaving cream. Luka asked, “What’s that?” The teacher explained, then added two drops of food coloring into the bag. Luka said, “It’s yellow,” along with the class. She then added two more drops to the side of the baggie and Luka shouted, “It’s blue!” The teacher then mixed the two colors together. Before she asked the question, Luka blurted erroneously, “It’s purple!” The class gasped in amazement as the color turned to green. After this, the teacher directed the students back to their seats to get ready to go home. Luka followed directions quickly and nearly ran into another child (personal communication, March 23, 2017). His lack of inhibitory control, or lack of ability to not restrain himself including not blurting out answers the entire morning, was apparent this day more than on any other observation day (Dilworth-Bart, 2007).

I observed lessons that required young children to raise their hands and wait to be called upon. I also witnessed children being told, on many occasions, to keep their voices off. Luka was eager to participate but was never called upon. I wondered if the curiosity of Luka would be squelched in a classroom which hindered his enthusiasm. Paulo Freire wrote about limit situations that prevented impoverished people from rising beyond their SES. He also wrote

about limit situations as obstacles to learning that impede emergent literacy and school readiness skills of preschoolers who reside in a low SES (Darder, 2015).

Day 3 observation. Luka was observed coloring and appeared focused. Luka looked up as I entered the classroom. Luka smiled and waved at the observer. He held up his coloring activity and proudly said, “Look!” I complimented him about the colors and how Luka managed to color within the lines. Luka watched as I moved to the back of the classroom. Three other children were also coloring at the table. Luka was not observed interacting with the other students.

The teacher gathered all the students together on the carpet. Luka put his work in his mail cubby, then moved to the front of the group near the teacher. The teacher told the students to make sure they were sitting “crisscross applesauce.” Luka was on his haunches. He turned to me and waved. The teacher asked the students to pay attention. She started to sing, and Luka began singing along. He sat on his bottom, rocked back and forth while holding his ankles and sang a “good-bye song” with the rest of the class. Luka appeared to have a great deal of uncontrollable energy this day, which is characteristic of many children who live in poverty and exhibit low attentional control (Dilworth-Bart, 2007). The teacher then told the students to line up. Luka looked over at me and waved me towards him as he lined up at the doorway. The class was dismissed into the hallway where they got their backpacks and coats (personal communication, April 4, 2017).

Observations of Ana and Luka

Day 1, Ana with Luka observation. Ana was fair-skinned and had green eyes. Upon first meeting her, she stated to me, “This looks like a nice preschool.” At first, she appeared to be new, but later documentation revealed that her son had been attending Early Growth all year. Ana did not talk with the other parents. She smiled and acknowledged the director and me when she came late to the meeting. Ana was observed talking to the staff and making eye contact with me. She wore a thick sweater with a turtleneck. She said she was going to be warm but didn’t know how to dress this day. When the meeting ended, and the doors were opened, Luka ran in to see her. His hair was long, dark, and wavy and looked like it had not been brushed yet. He was very excited to see his mother. Ana seemed nervous and did not interact with the other parents. Her focus was on her son, and she did not engage in any other conversations.

The ice cream project was received well by Luka who asked many questions about why the milk turned into ice cream when it was shaken and why it took so long. Ana had her son alternating between sitting on her lap and standing. He asked to make his own ice cream, and Ana handed him a baggie. She helped him pour milk into the baggie and measured the sugar. Luka poured the sugar in, then placed the first baggie into a baggie of ice. At each step, Ana explained the process to her son and Luka repeated what she said. Ana and Luka ate the ice cream as they both read a book that had been given to them at the PACT meeting. They remained at the meeting until long after everyone else had left. Ana talked to the director briefly, then she and Luka packed up and went home (personal communication, February 16, 2017).

Day 2, Ana with Luka observation. The second observation did not occur during the PACT meeting. Ana missed the next meeting, but she was observed playing with Luka in the daycare room following the interview session. Luka ran about and quickly pulled toys off the shelves, appearing to lose interest quickly. He finally settled, with parent direction, on wooden train cars and began attaching wooden railroad tracks together. Ana explained that Luka had trains like this at home, and that is why he chose to play with them. She sat next to him and said to him, “Oh, I see you are making a bridge.” Luka acknowledged her and asked several questions about certain trains. This conversation went on for several minutes. Ana was observed giving focused attention and verbally summarizing everything Luka did. The summary was not for my benefit as the observer, but appeared to be Ana’s way of participating in the playtime. Occasionally, Ana turned to me, but she was mostly focused on her child.

When Ana began talking with me, Luka started chewing on his left arm. He did this 3-4 times throughout this hour-long observation. Luka was given fish crackers, so the arm chewing did not appear to be caused by hunger. Ana did not acknowledge this behavior, and it seemed to occur when her back was turned to her son. Each episode of arm chewing lasted only a few seconds. It was always his left arm, and Luka sat still and stared when he did this (personal communication, February 23, 2017). Ana eventually shared her concern about this behavior during a later interview.

Day 3, Ana with Luka observation. Ana was present for my final PACT meeting. She arrived after the meeting began. The bonding activity that followed entailed Ana making a healthy, inexpensive treat with her son. Luka came into the room excitedly and kissed his mother. Ana stood up and let Luka sit down. She stood by him for the duration of the activity. Conversations between parent and child revolved around Luka asking many questions and Ana

responding and focusing solely on her son while other families shared with one another and other adults. There was a choice of two different snacks: apples in a yogurt ice cream cone and trail mix. Ana and Luka chose to make both. Ana and Luka read a book given to them after they finished the snacks. They were the last family to leave the room (personal communication, March 23, 2017).

### Interview of Ana

Ana was interviewed in a preschool room that was designated for childcare. The interview process for this parent lasted 90 minutes. Ana, although friendly during the PACT meetings, appeared very serious during the interview. Of the three parents interviewed, Ana showed less emotion in her responses. Her gaze moved from me to her son throughout the interview. Luka played and interrupted the interview frequently to obtain his mother's attention and to ask questions about various toys. Ana responded to the child's questions and was able to transition back to my questions easily.

Background. Ana was raised in the Republic of Georgia. Her boyfriend is Hispanic. Her parents were both professional dancers and taught traditional dance until they were divorced when she was very young. Her mother worked as a seamstress after the divorce. Ana, her mother and her older sister lived with her grandmother who, according to Ana, raised the children. Her mother did not make her go to kindergarten, because Ana wanted to stay home. Ana enjoyed the social aspect of school but did not like the academics. Ana explained she did not enjoy school, partly due to the teachers and because she "wasn't into it." She said her sister, who was 9 years older than her, was a second teacher to her. Ana attended college briefly and studied English in order to become an interpreter. Her family moved while she was

in college, so she stopped going. Ana spoke five languages, including Georgian and Russian. Ana told me she did not work currently but was a homemaker.

Home Environment. Ana had one child who was turning 5 in May. She had lived in her current home for 8 years. She stated that she liked living in Chicago and had no plans to move anywhere else. She lived with her son's father in a two-story house with her boyfriend's family. Her family lived on the second floor, and his sister and nephew lived on the first floor. Her boyfriend's sister was the owner of the house. Ana's mother, sister, and niece lived in New York. When asked about her daily routine, Ana described herself as very active. She worked out daily. When her son's father came home from work, Child 2 would wake from a nap, and she would make dinner.

Parenting. Ana was 29 years old when she had her son. Before having her son, Ana and her boyfriend lived together for 6 years. She did not participate in a parenting class, and she believed she already knew how to raise a child because she had worked as a nanny for 10 years. When asked about family support, she said her family did not live nearby, but if she needed anything, she could ask her boyfriend's sister. She stated that she did not have any friends to rely on for support, and she did not do anything social, like go to church, to meet new people. Ana had time for herself when her son was at preschool. On the weekends, Ana would take him to the park or the children's museum. She said he was rewarded with these activities when he showed positive behavior. Ana gave her son points on a daily chart. If he shared or helped out, Luka received positive points. If he threw things or bit, he was given negative points. Ana learned this strategy because Luka had been receiving therapy. When asked why he received therapy, Ana explained that she saw her son biting his arm many times when he was 2 years old. Luka had since been diagnosed with anxiety. Ana explained that Luka could

become aggressive and hurt himself. He would also throw things. A child's temperament, as researched by Vernon-Feagans et al. (2012), can cause additional stress for a parent which impedes positive interactions and diminishes language development. When asked if they had playtime together, Ana said, "Yes. He knows that there are times when he has his own playtime, too." Ana said they would play as a family when her boyfriend came home from work. They would play a game or whatever Luka chose. She also read a book to him at bedtime. Ana believed her child's feeling of security was the most important thing. She wanted him to grow up knowing there was always someone there for him. Luka was attached to his father, and this added to his sense of security. When asked if there was something she wanted for her son that she could not give him, Ana responded that she wanted him to feel good about his teacher and to be happy when he was at preschool. She stated that Luka was never in daycare, and preschool was his first experience of being away from her. He was happy when he started, and she wanted that to continue. Her reflection on this question gave the appearance that Luka worried about her son's happiness a great deal. Such worry could increase Luka's level of anxiety (Vernon-Feagans et al., 2012).

Educational Beliefs. As a personal goal, Ana wanted to go back to school to become a school psychologist because of her experience with her child's anxiety. She also wanted to have another child because she did not want Luka to be alone. Ana said she knew that her son missed having another child in the household to play with him. She thought this because he saw his cousins playing together and that they were very close, and he would like to have that too. For herself, Ana was interested in taking classes online. When discussing her child and his readiness for kindergarten, Ana thought he was "kind of ready." She "practiced reading" with her son at home, and she knew that he wanted to learn to read. They had many books at home,

and they read them together. She knew that he would need to know his colors and shapes. When he was with her, Luka showed that he could count to 100. When he starts kindergarten, Ana thought he should be able to sit still more than now. She thought that sitting was important for him to learn before he attends kindergarten. Ana was not sure whether he would have a hard time starting kindergarten or not and she said she could be surprised because he did not cry when he started preschool. Ana believed the preschool would help him be ready for kindergarten, and she was happy about that, but she did not like that children needed to know so much for kindergarten. Socially, she thought he would do well because he liked being around other people. His father was shy, but her son was not. She said she tried to be social to model that behavior for her son. Ana said that Luka was not a good listener, and that could cause problems for him. Her response indicated an understanding of the importance of having attentional control in order to learn in the classroom (Vernon-Feagans, et al., 2012). Ana believed she had a good relationship with his teacher, and the teacher communicated with her when there was a meeting to attend.

Literacy. Ana stated she had conversations with her preschooler frequently. She said she wanted to be very involved. She always asked him if he was happy, what he ate for a snack, and if he went to the bathroom. Ana said her son sometimes did not want to talk about everything. When Luka came home from preschool, he watched TV, and she prepared lunch for him. He usually watched TV for 1 to 2 hours. They would watch TV together when he asked Ana to join him. They loved to read. Ana read magazines, and she read them on her phone. She wanted Luka to see her reading and know that it was a positive activity. Ana said she did not have “grown-up books.” Ana took Luka to the library every 2 weeks. He had his own library card. They read together before he went to sleep. He kept his books on a

bookshelf under his bunk bed. Ana always sat on the floor during reading time. She stated she did not have to read the books to Luka, because he knew the stories and he “reads” them. Ana stated that when she reads to him, she changes her voice to match the characters to get him more engaged. As Luka looked at the pictures, she would act out what was happening. She used to perform in a theater, and she wanted her son to be more creative when he was older, so she tried to inspire him (personal communication, February 23 and March 23, 2017).

### Documents for Luka

Prior to acceptance by the Early Growth facility, Luka was screened to determine individual challenges, and then he was ranked against the other applicants because there was a waiting list for this preschool. Because Luka spoke mostly English in the home, he was not assessed using the Ballard & Tighe IPT. The results of the most recent assessment will be presented. The final document presented, will be Luka’s work samples.

Preschool Program Eligibility Form. Hearing and vision of Luka were assessed and produced normal results. Luka’s considerations for PFA qualifications included low income, extreme isolation, and no childcare or other preschool. The feelings of a parent in extreme isolation affects the emotional development of a child. The stress and depression of the caregiver can place a child in harm’s way through neglect and an absence of conversation. Parental stress fractures the relationship between the parent and child. The stress level of the caregiver is an important factor in the language development of a young child and can ultimately diminish the child’s reading potential (Vernon-Feagans et al., 2012).

Child and Family History. Luka had lived at the same residence since birth. He lived with his biological parents, who were not married. His aunt, who was the owner of the home,

and one cousin also lived at this residence. Both English and Spanish were spoken in the home. Family concerns included unemployment and difficulty meeting basic needs. The family received publicly funded medical assistance. Ana indicated that her child was hyperactive.

Luka self-help and social-emotional scale. Luka displayed difficulty with toileting and dressing himself in the area of self-help. Ana indicated that her child sometimes had difficulties with co-operative play, giving directions, and maintaining focus on an activity. This indicates that Luka has difficulties with attentional control, a part of executive function (Dilworth-Bart, 2007).

Brigance Screener. Luka was assessed at the age level of 3 years and 8 months. He scored average for language development and academic/cognitive development. At the time of this assessment, he could recognize all colors presented, he could repeat sentences, he used prepositions and irregular plural nouns, and he could label objects.

Teaching Strategies Gold. Luka, on a scale of 1 to 9, scored lowest in the literacy category. His weakest area involved his discriminating smaller units of sound; he scored 1. Previous research indicates that children from poverty score lower in the area of phonological awareness due to fewer conversations in the home (Neuman, 2008). He scored 2 on retelling stories and noticing/discriminating rhyme. Narration (i.e., story retelling) falls under the category of working memory, which is a component of executive function (Dilworth-Bart, 2012). Rhyming as discussed by Marie M. Clay (2015), requires a child to discriminate between vocal sounds to determine sound patterns. A child's ability to rhyme affects his ability to read. The average score of other preschoolers Luka's age was 4.

In the social-emotional components, Luka scored 3 in following limits and expectations, interacting with peers, making friends, and balancing needs with the rights of others. The

average score of these components for other preschoolers his age was 6. This average score of 6 reinforces the concept that attentional control plays a significant part in the learning process, and Luka struggled in this area (Dilworth-Bart, 2007).

Work Samples. In September, the beginning of preschool, Luka knew 24 upper-case and 22 lower-case letters. By May, Luka demonstrated recognition of 26 upper-case and 24 lower-case letters.

### Case Study 3: Family 3-Ynez and Sofia

#### Observations of Sofia

Sofia was a 4-year-old who had been attending the Early Growth facility since September. This was her first year of preschool, she had not been in daycare previously and she did not participate in the PAT program from birth to age 3. Sofia attended preschool in the afternoon. Hers was a bilingual classroom. The classroom was located on the second floor. Children sat at assigned tables that were marked with their names. There was a computer center, an area for painting, and one for pretend play. A large carpeted area was to the right of the doorway. All students in this classroom spoke Spanish as their primary language. There was one certified teacher and two assistants. Because Family 3 agreed to participate in this study later than the other two families, observations were reduced from 3 days to 2.

Day 1 observation. I entered the bilingual classroom while students were seated on the carpeted floor. Sofia watched the teacher and sang along with her classmates. The song was in Spanish and appeared to have been sung many times before because all students knew its related, well-practiced movements. The faces of the children revealed enthusiasm and big

smiles. The countenance of Sofia did not match that of her classmates. She knew the words to the song and joined in the hand movements. Unlike the other students, she appeared serious in her expression. Her eyes were fixed on the teacher. Occasionally, she looked to the child seated to her left as if to compare her own hand movements.

I focused upon Sofia's interactions with her classmates when the children were dismissed from the carpet to get ready for snack time. Sofia moved quickly, and her pace seemed almost like a run. Four girls moved quickly to one of the sinks to wash their hands. Sofia tried to cut one of the girls off as she lined up to wash her hands too. After washing their hands, students sat at their assigned tables and were given string cheese and applesauce. Sofia sat at a table with three other girls. The girls talked amongst themselves, but Sofia did not speak. She was observed for 45 minutes and her interactions with the other students were minimal (personal communication, March 23, 2017). According to Vygotsky (1978), the home environment influences a child's development and is manifest in the language and thinking of the child. Language has a social purpose, and unless a child practices socializing in the home regularly with caregivers, he or she will struggle to have conversations outside the home.

Day 2 observation. Sofia was seated on the carpet with her classmates while the teacher read a story in Spanish. Afterwards, the teacher asked questions about the story. Students participated by raising their hands, hoping to be called upon. The question-and-answer session lasted several minutes. Sofia never raised her hand during this time to participate in the conversation. Comprehending a story, then answering questions and retelling events requires the ability to sequence and apply narrative skills. Spencer and Slocum (2010) studied narration in early childhood and determined that a child's ability to narrate is critical to the prediction of reading success. Comprehension skills that a child uses when a story is read to him or her are

affected by oral language. A weakness in comprehension is attributed to minimal vocabulary development and an inability to narrate, which is a retelling of the story (Marulis & Neuman, 2010).

Behind the teacher was an easel with a white board on it. The teacher called on students two at a time to write their name on it. Sofia was called. Her handwriting, in comparison to most of her peers, was large, and the letters were well formed. Once all students had written their name, they washed their hands, then sat at their assigned tables as snacks were passed out. Sofia was sitting at the same table as before and with the same girls. She was given cheese sticks, opened the package by herself and began eating. The other girls talked to one another. Sofia did not engage in the conversation (personal communication, April 4, 2017). Conversing with peers provides an opportunity to practice pragmatic language. According to Beverly Otto (2010), “Pragmatic knowledge contributes to our awareness of how to converse with others, how to participate verbally in various social settings, and how to produce connected discourse, such as narratives” (p. 12).

After snack time, the children were allowed to have playtime. Centers were set up throughout the room. The students who were sitting with Sofia went to a carpeted area where they read books and listened to music. Sofia eventually left her table to join this group of girls. She was observed an additional 15 minutes but did not ever speak to the other girls during this entire time. She sat on the carpet with them, but she never joined in. It was as if she were performing parallel play, which is what children much younger than Sofia perform.

The teacher summoned the children to join her on the carpet again. She played a song the children were familiar with. It was the end of the day, and this was a goodbye song. The children sang with the teacher. Sofia joined in as well. She did not display any emotion while

the other children smiled and appeared to enjoy themselves (personal communication, April 4, 2017).

### Observations of Ynez and Sofia

Ynez was friendly and a rapport between the parent and me quickly developed. Ynez readily agreed to participate and was recruited during the second day of PACT observations. The recruitment of Ynez occurred after a previously recruited family was deemed inappropriate for this study's demographic. Because of this, in addition to Ynez not attending the PACT meetings regularly and her daughter's absence from preschool, the number of possible observations decreased from three to two for both the classroom observations of Sofia and Ynez and Sofia's observations together.

Day 1, Ynez with Sofia observation. Ynez sat with other parents she appeared to know. They talked briefly in Spanish. Ynez appeared happy and comfortable in this setting. Her eyes were always on the speaker, and she was smiling. She listened intently, but she never contributed to the discussion. Occasionally, she nodded her head.

As this day's PACT meeting concluded, the doors opened, and children ran to their parents. Sofia entered the doorway quickly and ran to the wrong parent. When she realized this, she quickly looked around for her mother. Ynez was sitting beside a parent and talking. She immediately noticed her daughter's confusion and called her name. Parent and daughter made eye contact, and Sofia ran to sit by her mother. Sofia looked uneasy. Ynez leaned in towards her daughter and whispered. She then showed her daughter the new books she was given this day. Both books were the same, but one was in English, and the other was in Spanish. I did not see any other parents sharing the books with their children. Her mother's

excitement over the books appeared to engage Sofia. They were looking at the pictures and discussing one of the books. Ynez was speaking in English. Sofia pointed, and her mother talked. Most of this session was spent reading the books (personal communication, February 23, 2017). Material resources, such as books, are largely unavailable to children who live in poverty (Neuman, 2003). The children's books provided during the PACT meeting appeared to be greatly appreciated.

Tables in the room were moved together to hold several containers of ingredients for making healthy snacks. One activity a child could choose was filling an ice cream cone with yogurt and adding apple slices. A second activity was creating trail mix using ingredients other than nuts because many children were allergic to nuts. Ynez and Sofia went to the tables together. Ynez asked her daughter what she would like to make, and Sofia pointed to the ice cream cones and yogurt. Ynez used a spoon to fill the ice cream cone, then placed several apple slices in the yogurt. She shared the treat with her daughter who dipped the apple slices into the cone. Sofia was not observed assisting with the making of the treat. Ynez did everything for the child (personal communication, February 23, 2017).

Day 2, Ynez with Sofia observation. Ynez arrived at the PACT meeting after it had begun. The door was closed when she arrived, and she took a seat at the far corner of the table. She smiled and made eye contact with me immediately while the speaker discussed the topic of discipline. She turned to speak with another parent briefly. At the end of the meeting, the director gave a free children's book to each parent. When she was asked if she wanted the book in English or Spanish, she asked to take both. Only one other parent at this meeting took the book in both languages.

This day's activity was the creation of a paper bag puppet that the parent and child would make together. The doors were opened, and the children came in to join their parents. Sofia came quickly into the classroom. She looked confused and looked around for her mother, who waved to her. Ynez offered her child a chair beside her, and she sat down. She asked Sofia if she had a good day of preschool, and her daughter nodded. Ynez showed her daughter the books given to her this day. She spoke to her daughter in English and read the title to her. The other families made the puppets with their children using various items in Tupperware containers on the tables. Ynez and Sofia were still looking at one of the books. Ynez read it to her daughter as she looked at the pictures. She talked about the pictures, and Sofia pointed. Ynez continued to read. She was not heard asking Sofia questions about the story. Ynez paused before turning each page and discussed the pictures. Sofia repeated some of her mother's words.

After 15 minutes, Ynez told Sofia to choose the markers she would use to color the puppet. Sofia picked out pink and no other marker. Ynez told her daughter to pick out a yarn for the puppet's hair. Sofia picked pink yarn. Her mother told her to draw eyes on her puppet. Sofia drew two circles which were not aligned on the puppet's face. One circle was much larger than the other. Sofia seldom spoke to her mother or talked about what she was doing. She followed her mother's directions but did not appear to take the initiative when choosing craft items for her puppet. Many children could glue eyes onto their puppets. Sofia was not observed using glue.

During this activity, parents and children shared snacks provided by the preschool. The activity concluded approximately 30 minutes later as parents packed up their things and left with their children. Ynez and Sofia continued eating their snacks and finished the new book

before they packed up. Ynez asked her daughter if she had fun, and Sofia nodded. She took her daughter by the hand, thanked the director and me, then left the room (personal communication, March 23, 2017).

### Interview of Ynez

The interview of Ynez lasted 2 and a half hours. The duration was an hour longer than the interview of Ana and a half hour longer than the interview of Isabella. The location and time of the interview were based upon a request made by the parent. Unlike the previous interviews, this one occurred at a local restaurant while Sofia was at preschool. Throughout the interview process, Ynez appeared thoughtful and comfortable with me. Her answers appeared honest, and she maintained eye contact. At the end of the interview, Ynez thanked me for inviting her to reflect on child rearing. She stated that this interview process was helpful to her as a parent.

Background. Ynez came to the United States from Mexico when she was 4 years old. She lived in this city since that time. Ynez grew up with four brothers and three sisters. Both of her parents performed manual labor. Her father was a janitor, and she would stay up late as a child, so she could see her father when he came home from work. Ynez said her parents worked hard to give to their children. Her mother was injured while working, and eventually her mother did not work, so her father became the sole provider for the family. Ynez was not aware of the details regarding her father's work or whether he had more than one job, but she knows that he worked many hours.

As a child, Ynez remembered enjoying the social aspect of school, but that school was difficult for her. When she started school, she was placed in a preschool classroom with her

brother who was a year younger than her. After a short time, she was placed in a kindergarten classroom. Ynez remembered this change caused a setback for her academically because she did not understand why she was no longer with her brother. This confusion, based upon her immigration into the United States without a birth certificate, created a limit situation for Ynez. After this move into kindergarten, she began learning in a bilingual classroom. It was not until third grade that Ynez learned to read. She attributed this to her transition into an all-English-speaking classroom.

As a child, she remembered her parents moving from the east side of the city to the west side; this move negatively affected her performance at school. In high school, Ynez recalled performing well until her sophomore year. She described herself as being “lazy” and said she slept late and missed several classes. This continued through her junior and senior years. As a result, Ynez attended high school an additional semester in order to graduate.

Ynez was employed and cared for the elderly. She had worked at her current position for a year and a half. She was currently studying to become a certified nursing assistant (CNA). She would become certified this coming summer. She described herself as being a friendly person who wanted to help others. She said she had always wanted to give back and described her job as rewarding. Her boyfriend worked in a factory and both of his parents worked as well.

Home Environment. Ynez had her 4-year-old daughter and an 8-month-old son. Her two children filled her with a sense of pride. She had lived at her current address for 5 years with her boyfriend’s parents. She had lived with her boyfriend and his parents for the past 7 years. Ynez said they were living with his parents because her boyfriend believed his mother and father could not make it on their own. Ynez said she had a strong attachment to her

parents. Occasionally, her boyfriend talked about moving out of state, and she would become sad. He had discussed moving to New Mexico, which she did not want to do. She did not want her children to grow up without her parents in their lives. Her boyfriend's relatives were living in New Mexico, and that was why her boyfriend's family wanted to move there. At the time when the move was first discussed, his parents had lost their house and filed for bankruptcy. They were not able to purchase a home in New Mexico, so she and her boyfriend moved in with them to assist with the bills. His parents were renting their current home. Ynez added that she would ultimately agree to move anywhere as long as God was with her. Her faith provided her with peace of mind.

Ynez discussed her routines, which varied from day to day. Monday through Friday, she woke her daughter and got her breakfast and ready for preschool. If Ynez was alone, she would wake her son and get him ready to take Sofia to school. After she dropped her daughter off at school, she came home to clean and breast pump before going to work after picking her daughter up later in the afternoon. Because her job was part-time, she only worked from 4:00 to 8:00 pm. She would occasionally talk to her daughter about school while they traveled home from preschool. Ynez would try to play with Sofia after school, but she often felt rushed to get to work. After work, she rushed home to watch her children. She tried to relax by watching television, then she would get the children ready for bed. Ynez described herself as not being structured about sleep time and waking up. Sofia sometimes did not go to bed until midnight. This negatively affected her daughter the next morning and, subsequently, sometimes Sofia did not get enough sleep. In addition, because they were rushing in the morning, Ynez was often unable to play with her daughter then. Any opportunity for playtime was late at night, after she came home from work. Vernon-Feagans et al. (2012) discussed disorganization as being a

factor that impedes learning and executive function. A disorganized home involves noise in the home and neighborhood, television noise, household crowding, and a lack of structure and routines.

As far as receiving support with raising her children, Ynez said she wished that her boyfriend helped out more than he did. Her boyfriend's mother usually cooked dinner, but Ynez stated that she would like to get dinner ready herself. On her days off of work, she tried to cook and have dinner ready for everyone else. Ynez would like to move her family out of the currently shared home and have her own place, so she could be more independent. She described her current home as belonging more to her boyfriend's family than to her. Ynez considered her boyfriend's father to be the head of the household because he paid the rent. She wished that her boyfriend supported her and would agree to find their own home. She wanted her children to grow up in a better home, a home of their own.

Parenting. Ynez was turning 21 when she had her daughter. She considered her daughter a birthday present because their birthdays were 3 days apart. Again, she called her children her pride and joy. Ynez described being a parent as special and fulfilling. She remembered being nervous about being a first-time mom, but when she held her daughter for the first time, she felt very happy. She attended two parenting classes to prepare her to give birth, but she never had another parenting class until the PACT meetings this year. Because she often doubted her competence as a parent, the meetings provided information that increased her self-confidence. Ynez had learned to be more positive towards her daughter and understood the importance of spending time with her.

Ynez was concerned about raising her daughter to be a moral individual. She believed that raising her child to become an adult with strong character would be a challenge. Ynez had

strong faith and she wanted her daughter to grow up attending church and to encourage her daughter to have strong faith, and principles. Teaching Sofia the importance of having faith was a priority for Ynez. She believed that if her daughter went to church and believed in God, everything else would be easier for her. Teaching her daughter to have faith was difficult because Sofia's father did not attend church. He thought that going to church was a waste of time, but Ynez believed it would help Sofia become a good sister, child, and neighbor.

Ynez attended church regularly with her family. She had been attending the same church for the past year. When asked about the supports she received from the community, she stated that they had gone to lunch with other families after church but did not do this regularly. Ynez said this experience was nice, but she was not close to these parents. She was hoping this would eventually change as they got to know one another. She described herself as being shy and not outgoing. This was surprising to me because she had been very talkative throughout the interview. Ynez was fond of a neighbor who assisted her whenever she had car problems. He also gave her a high chair when her daughter was born. He asked her how the children were doing from time to time, and she appreciated that. Ynez expressed frustration with her boyfriend because she wished he were more supportive, more involved. Her greatest hope for her family was that he would become more involved. When she must do homework, he did not play with the children, and she was never able to leave home to study elsewhere. Ynez waited for her children to fall asleep in order to complete her homework. Sometimes her boyfriend worked 12-hour shifts, and she understood that he was tired, but she wished he would participate more and do more things with her and the children. A lack of support from the children's father made it difficult for Ynez to have time for herself. As a result, she felt

overwhelmed and anxious because she was always rushing to get things done on her own. She did not ask for her boyfriend's parents to help her because she did not want to burden anyone.

Ynez understood the importance of playing with her children, but she stated she did not have the time. Another hope for her children was that she would have more quality time with them in the future. Her busy life interfered with playtime, and this caused a sense of guilt. In the evening, after work, she prayed with her daughter or read a book to her. When she picked her daughter up from school, she talked to her in the car. She encouraged her boyfriend to do fun things on the weekends together. Sometimes they would go to a park as a family or get a hamburger together. Family excursions occurred three to four times a month.

When asked about family and personal goals, Ynez stated that a primary goal for her daughter was to ensure Sofia could speak both Spanish and English fluently. She remembered struggling as a reader in both languages. She wanted her daughter to continue with bilingual education because she felt her daughter would become a stronger reader in both languages if she continued using Spanish in the classroom. One of her personal goals, outside of becoming a CNA, was to learn strategies for assisting her daughter with reading in both languages. She did not want Sofia to struggle with reading as she had in school. Another goal was to provide Sofia with the opportunities she did not have as a child. Financially, she was unable to provide her daughter with toys or other items Sofia wanted. She hoped to increase her income, so she could give her daughter more opportunities for fun and play.

Educational Beliefs. Before she entered kindergarten, Ynez believed her daughter should know her letters and numbers. She admitted that her daughter struggled with both. Her discussion included ways to reorganize her day to spend more time on academics with Sofia.

She suggested that she could teach her daughter the alphabet and numbers during playtime.

Ynez agreed that she needed to improve how she taught her daughter prekindergarten skills.

Her daughter's social skills were another concern for Ynez. Previously, she stated that she was shy when she was a young child, and she felt her daughter inherited this trait. Ynez stated that shyness made it harder to be successful in school, and she hoped that having her child in preschool would increase her daughter's ability to interact with others. According to Vygotsky (1978), the home environment influences a child's development. Vygotsky theorized that thinking has a social and cultural framework that can be exhibited in the semantic use of language and in the social pragmatics of conversation. Both the semantic and pragmatic usage of words are practiced during conversations with others, and more practice results in higher competence. During the last parent/teacher conference, Ynez was informed that her daughter was improving in this area. Sofia was very timid when preschool started in September. Relatives told Ynez not to put her daughter in preschool because she was too shy and was not ready. Ynez did what she thought was best for her daughter, though she did not have support for this choice from family members. Though Sofia continued to display inhibited behavior, Ynez thought her daughter would benefit from the early exposure to school.

Literacy. Ynez understood the importance of school readiness skills, though she had difficulties assisting her daughter with acquiring them. Having quality time with her daughter was challenging. The lack of time placed a limit situation on her relationship with her daughter. Conversations with her daughter could expand her daughter's exposure to language, but Ynez admitted that her daughter had difficulties with formulating questions, providing responses, or articulating her thoughts. I observed these weaknesses in the classroom during the teacher's questioning after reading a story. Sofia never contributed to classroom

conversation. Comprehension skills require not only oral language and narrative skills but also vocabulary and background knowledge. Children from poverty lack experiences which contribute to all of these learning requirements (Neuman, 2008).

Ynez attributed her daughter's shyness to her lack of communicative skills and her inability to formulate or answer questions. Ynez also confirmed that she did not have enough time to have conversations with her daughter (a limit situation), which also impeded her daughter's social and cognitive success at school. Not having the time to play or converse with your child is a byproduct of living in an impoverished environment.

Ynez prompted her daughter into conversing when they read a book together. She pointed at pictures in a book and asked Sofia questions. Likewise, when in the car, she would point to something outside the window as a conversation starter to generate a response from Sofia. By doing this, Ynez acted as an interventionist when she prompted her daughter to converse with her, which is an effective strategy (Otto, 2010). Compared to time spent with her daughter as an infant, she had learned to have conversations with her son even though he was an infant. The techniques she used were learned at support meetings provided by the preschool for mothers of children up to age 3. She did not learn these techniques when her daughter was an infant. Ynez had learned that every moment was an opportunity to interact with her children. She was asked by the teacher how she showed love to her child, and she realized that she should talk to her daughter differently and in a more positive manner. Conversations could occur during television watching, according to information Ynez received from meetings geared towards her relationship with her son.

Relationship building could be hindered by noise in the home. Ynez stated that the television in her home was turned on throughout the day and again when she returned from

work. Having constant noise in the home throughout the day was another factor that disrupts the development of executive function because it adds to a chaotic home environment (Vernon-Feagans, et al., 2012). The TV channel would be turned to adult-themed programs that she did not like her daughter exposed to. She did not want to offend her boyfriend's parents by asking them to change to children's programming. Ynez mentioned that it was difficult to monitor the channels Sofia was watching because she felt the home belonged to her boyfriend's parents, and they were in charge of the television.

Because the television was not a means for creating conversations with her daughter, Ynez was asked about reading habits. Ynez did not like to read, and the only adult book she owned was the Bible. She had a children's Bible for her daughter, and she was collecting children's books given to her daughter after attending PACT meetings. She tried to read with her daughter at bedtime when she nursed her son. Often, her daughter made up the story in a book by looking at the pictures. Ynez stated that they did not visit the library frequently, and Sofia had checked out a book from there only once (personal communication, March 23 and April 4, 2017). The information provided by Ynez supports the research that states that students from the lowest SES experience 25 hours of having books read to them before kindergarten as opposed to the one million hours that children in the highest SES homes experience (Neuman, 2003).

### Documents for Sofia

Prior to acceptance into the Early Growth facility, Sofia was screened to determine her individual challenges, and she was ranked against the other applicants because there was a waiting list for this preschool. Because Sofia spoke mostly Spanish in the home, she was

assessed using the Ballard & Tighe IPT. The results of the most recent assessments will be presented. The final document presented will be Sofia's work samples.

Preschool Program Eligibility Form. Sofia's considerations for PFA qualifications included low income and no childcare or other preschool. Hearing and vision and were tested; Sofia required vision retesting because she was difficult to test. Sofia also needed her hearing retested because she did not respond to low tones when wearing headphones.

Child and Family History. Sofia has lived at her current residence for the past 3 years. Sofia lived with her infant brother, her grandparents, and her biological parents who were not married. Both parents completed high school. Spanish was the primary language spoken in the home. Ynez indicated concern about her daughter's shyness. The family received food stamps and publicly funded medical assistance.

Sofia's self-help and social-emotional scale. Sofia displayed age appropriate behavior in the area of self-help. Ynez indicated that Sofia did not play with other children or had a close friend. Sofia sometimes concerned her mother in the areas of self-confidence, turn taking, and playing appropriately with others. Ynez' concern supported the evidence I gathered during classroom observations.

IDEA Proficiency Test. Sofia was assessed for oral Spanish speaking; she performed at an early intermediate proficiency level as a 3- to 4-year-old. The scale ranges from beginning, early intermediate, intermediate, early advanced, and advanced. She was assessed as having limited Spanish-speaking ability. She was also assessed for oral English ability; she was assessed to be performing at the early intermediate to intermediate level. Therefore, Sofia performed at the early intermediate level in both Spanish and English.

Brigance Screener. Sofia was assessed at the age level of 3 years and 8 months. She scored below average for language development and academic/cognitive development. She performed below average in physical development. At the time of this assessment, she could recognize all colors presented, she could repeat most sentences, she used prepositions but not irregular plural nouns, and she was below average in labeling objects.

Teaching Strategies Gold. In the area of Spanish literacy during the fall and winter, Sofia had difficulties with noticing and discriminating rhyme. On a scale of 1 to 9, she scored 2. This falls well below the average of peers her age. She scored 1 for noticing and discriminating smaller and smaller units of sound and using letter-sound knowledge, well below the average of her same-age peers. Her deficit in phonological awareness is attributed to few conversations in the home, minimal book reading, and an inability to decipher certain sounds per the hearing assessment (Neuman, 2003). For recognizing and recalling, Sofia scored 2 which is well below the performance of her same-age peers. Social-emotional assessment revealed that Sofia scored lowest and well below the average of her same-age peers in managing feelings, responding to emotional cues, interacting with peers, and balancing her needs with the rights of self and others. I observed Sofia demonstrating little interaction around same-age peers, which hindered her ability to improve her identified social-emotional deficits.

Work Samples. Sofia produced work samples that depict difficulty with drawing a line and making a circle. She recognized 10 of 26 upper-case and 7 of 26 lower-case letters. When shown eight shapes, she verbally labeled half of them. Labeling requires vocabulary knowledge. Children in the lowest SES homes accumulate 13 million experiences with words as opposed to students from the highest SES homes who accumulate 45 million experiences with words (Neuman, 2003).

## Summary

This chapter presented data collected from the case studies of three students and their families. The sources of the evidence collected were observations, interviews, and documents. All data were triangulated to answer the research question: How does the development of executive function and language for a preschooler living in poverty influence vocabulary acquisition and early reading skills?

Data presented in this chapter suggests that the development of executive function and language skills for preschoolers living in poverty provides discernable diminishment on the attainment of vocabulary and early reading skills. The parents and children in each case study reveal similar characteristics demonstrated through language usage, literary exposure, parent and child bonding, and environmental factors. All elements play important roles in the vocabulary development and reading skills of preschoolers. Chapter 5 presents an analysis of the data to compare and contrast each case study and highlight the themes made apparent through the findings.

## CHAPTER 5

### ANALYSIS OF THE FINDINGS

As previously discussed, this study is important to the field of education and to the needs of families living in poverty. The purpose of this study was to address the following research question: How does the development of executive function and language for a preschooler living in poverty influence vocabulary acquisition and early reading skills? This chapter summarizes the findings and discusses discernable themes within and between the case studies. Similarities and differences between each case study are also discussed. The conclusions deduced, the limitations, and future recommendations are addressed in Chapter 6.

#### Analysis of the Findings

##### Determining the Themes

Coding strategies were used to classify the findings into general patterns and look for subsets within two overall categories: behavior and language. Both categories refer to the research question that focuses upon executive function (i.e., behavior) and the language development of students living in poverty. The researcher examined patterns and inconsistencies within the preschool documents to determine whether the material fit with the other 2 data types, the observations of the child, the observations of the parent and the child, and the interviews (Mertens, 2015). Thematic analysis allowed me to deduce the relationship

between the data, following the coding process, and insert coded findings into the two major categories. According to Saldana (2013), theming the data is appropriate for all qualitative studies that investigate the participants' "beliefs, constructs, identity development, and emotional experiences" (p. 176). This study's purpose was to explore the behavior and language development of preschoolers living in poverty; therefore, thematic analysis is an appropriate technique for categorizing the data. The themes constructed through inductive reasoning are presented in this chapter with evidence from both the collected data and the previous research.

#### Analysis of Participant Behavior to Determine the Development of Executive Function.

According to Raver et al. (2012), chronic exposure to poverty and psychological stressors increases a child's reaction to stimulus in a negative way and decreases learning ability. Paulo Freire (1993) described that poverty contains limit situations, and it is important to discuss them in order to effectively address them in the classroom. Darder (2015) further explained that there are historical components to these limit situations. Understanding the historical components of each family in this study is necessary for understanding each child. Chaos in the home and the executive function of the preschoolers within each case study, and across case studies, are discussed. Careful consideration of the emotional characteristics of the parents, along with the inhibitory and attentional control of each child, are analyzed and compared across the other three cases. Commonalities among and differences between each of the case studies are be presented.

Theme 1: Parents' emotional responses towards education are derived from past experiences. The interviews and observations in this study provided both negative and positive

emotional response from parents, especially when their own childhoods and educational experiences were discussed. The interviews provide insight into the substructures of the family and underscore the influence parental achievement has upon a child. Richard Rothstein (2004) wrote, “Demography is not destiny, but students’ [sic] social and economic family characteristics are a powerful influence on their relative average achievement” (p. 16). The educational background of a parent provides understanding regarding the capacity of each parent to nurture the child and provide educational support in the home.

All three parent participants recalled school experiences that evoked tears and criticism of their own academic performance. Isabella came to the United States when she was 4 years old and was later enrolled in public school. She shared with me that school was difficult, and her parents were unable to assist her because they did not “understand the system.” Isabella discussed her animosity towards educators who, she felt, discriminated against her because she was Hispanic. She explained that the discrimination she endured in high school, in addition to her lack of achievement, was the reason she dropped out of high school (personal communication, February 23, 2017).

Ana informed me that she did not like school, partly due to the teachers and because “I wasn’t into it.” She admitted that she only liked school for social reasons. Her older sister helped her with schoolwork while her mother, a single parent, worked to support the family. Unlike the other parents, Ana attended school in another country and was a high school graduate (personal communication, March 23, 2017).

Ynez, like the other two parents, did not have fond memories of school. She came to the United States when she was 2 years of age. Ynez remembered enjoying the social aspect of school but thought the work was difficult. Upon first entering school, Ynez was placed in a

preschool classroom with her brother. When it was discovered that she was a year older than him (she did not have a birth certificate), she was moved into a bilingual kindergarten classroom. She attributed this experience to creating a negative setback for her. Ynez did not learn to read until she was in third grade. At that time, she was moved into an English-speaking classroom. Ynez felt her previous bilingual classroom hindered her literacy attainment. She remembered her parents moving from one end of the city to another and recalled that this experience caused her another academic setback. She described herself as becoming “lazy” by the time she entered high school. She would get up late and miss the first few classes, which was why she had to attend high school an additional semester before graduating (personal communication, April 4, 2017).

All three parents were immigrants, and all three parents did not view school as providing a positive academic experience. Isabella and Ynez discussed school experiences that left them feeling powerless over their performance. Isabella felt marginalized and did not receive the assistance she needed from her parents to understand her schoolwork. Ana, who was raised by a single mother, received academic support from an older sibling and not a parent. Because her parents did not speak English and did not understand how to help their daughters navigate the school system, Ynez, like Isabella, fell behind in school. The education of all 3 parents was devoid of adult support. Paulo Freire (1993) wrote about “conscientization,” a term that denotes critical consciousness. According to Freire, conscientization occurs when the educator is able to perceive contradictions in the educational system and teach in a way that allows students to overcome poverty instead of maintaining the status quo. In reflecting upon the educational commonalities of all three parents as children, I

wonder if the experiences of the parents in this study could have been different if critical consciousness had been a part of their classroom experiences.

Theme 2: Parents' emotional responses towards their child are based on stressors. All three parent participants provided stories from their childhood that demonstrated a separation between the child and the adults in the family. All three parents did not get educational support from parents when they were little. All parent participants indicated their parents were devoted to them, but childhood memories never included shared family activities. Each parent was raised in a low-SES environment, and their parents worked hard to support them. Lareau (2011) indicated that for parents living in poverty, "Children's leisure activities are inconsequential and in a separate world. Of much greater importance are the many steps involved in getting children through the day" (p. 83).

Research undertaken by Ursach et al. (2013) investigated the negative interactions between a mother and child who live in an impoverished environment. Stressors within this environment influence a mother's emotions and hinder the healthy attention a child needs throughout infancy and early childhood. Their research reveals that negative emotional factors within the home can predict a child's academic success prior to kindergarten.

Interviews of the parents and observations of the families provided me with insight into the relationship a child has with a parent. I focused upon the emotions of the parents during the PACT sessions and during the interviews and noticed negative responses by all three parents to their child participants. These responses included fear, worry, lack of self-confidence, and frustration due to stressors within the home.

Of the three parents, Isabella showed the most difficulty with engaging her son in a paired activity after the PACT meetings. Throughout the first activity with Family 1, Tomas

was completely disinterested. Tomas would not assist his parent with the creation of ice cream. Tomas repeatedly went under a table, and although Isabella continually requested his assistance, Tomas ignored her pleas. Isabella appeared embarrassed and told me that Tomas often does not participate (personal communication, February 16, 2017). During the second activity, Tomas participated with the parent. Like the first activity, the second activity required the families to make a snack. It is unclear as to why Tomas responded more favorably to this activity. Isabella smiled and appeared more relaxed. Parent and child were observed interacting, and Isabella smiled, saying that Tomas enjoyed making the treat (personal communication, February 23, 2017). The third bonding observation produced the same outcome as the first. Tomas spent the entire activity time under a table. Isabella did not plead for him to participate but continued to create a paper puppet with a child she was babysitting that day. Isabella's emotions were not as heightened as during the first observation, but her embarrassment was obvious as she looked at me multiple times (personal communication, March 23, 2017).

Isabella discussed the behavior of her son during the interview process. She described her son as "very rebellious and a troublemaker." When discussing education, Isabella described her worry about Tomas and the stress that he caused her to feel. Isabella stated, "You tell him not to do something, he does it! I think he has ADD or ADHD. Like at home, he is different from school. If you tell him not to do something, he will punch you or hit you. I think he is different from other kids, (Personal communication, February 23, 2017)." Isabella talked about the notes that she received from preschool staff about Tomas biting and hitting other children, and she worried that the school thought she was a bad parent (personal communication, March 23, 2017).

Isabella demonstrated worry and sadness during the interview when she spoke about her fear that she would one day be taken away from her children due to her immigration status. Tears were shed throughout the interview. Isabella also feared that her family would have to return to government housing one day due to economic reasons. When registering her son for preschool, Isabella indicated on the document that “unemployment and ability to meet basic needs” were concerns. A section on the form asked for specific concerns related to the child, and Isabella wrote, “child’s hyperactivity and ability to listen to adults.”

As Vernon-Feagans et al. wrote, “It is not stress in itself that affects children, but rather, stress seems to affect parent-child interactions” (2012, p. 341). All three parents demonstrated or spoke about stress during the observations and interviews. Ana was never observed speaking with other parents during the PACT meetings but was friendly to the preschool staff. She always arrived late to the meetings and appeared hurried. At times, her dress was inappropriate for the weather. It was unclear as to whether she paid no attention to the weather or had nothing appropriate to wear. When interviewed, Ana never smiled and was unable to completely focus on me because she was always watching Luka. During the PACT activities, Ana and Luka conversed quietly, and their interactions seemed almost private in the open setting of the lounge. Ana blocked out others around her by whispering to her son and never moving her eyes away from him (personal communication, February 17, 23, and March 23, 2017).

The first bonding activity after a PACT meeting revealed Luka running over to Ana excitedly. Ana did not smile but greeted the child in a warm tone. I noticed the parent continually looking at her child and the activity but never at any other adult. She sat with her son and appeared nervous. Her head was down at the activity as her son sat on her lap. This

same behavior was evident during subsequent meetings and activities. After every bonding activity, Family 2 was the last to leave (personal communication, February 17, 23, and March 23, 2017).

When Ana was first interviewed, she set up a wooden train for her son in the daycare room. She appeared more interested in her son's welfare throughout the interview. Luka had never been observed chewing on his arm until the interview process began. Arm chewing was observed 3 to 4 times during this session. During the interview, Ana indicated that her son began showing signs of anxiety at 2 years of age. When asked about his behavior, she stated he would chew on his arm, hurt himself and, throw things at home. She took him to see a therapist, he and was eventually diagnosed with anxiety. I inquired about playtime during the interview, and Ana stated that she and her son play together, but she also expects him to play alone (personal communication, March 23, 2017).

Alone time seemed to be prevalent in Family 2. Ana stated that she did not have family or friends to rely on for support but also stated that she did not go out of her way to participate in social activities that would allow her to make friends. On the registration form for preschool, social isolation was circled as an existing characteristic. I understood from the conversations with Ana that Luka was also isolated from other children. He had never attended daycare and was never babysat by another caregiver. During the interview, Ana stressed that she wanted to have another child, so her son would not be alone. One of her desires for her son was that he would always know that someone was there for him even when he was at school. Ana said her son was attached to his father, and this gave him a sense of security. Even though the parent never verbally indicated that she was depressed, she had a lack of affect in her expression. Her son appeared to be her only social interaction and vice versa. Her boyfriend's sister and the

sister's child lived downstairs from Ana, but conversations with Ana did not indicate that this relationship was close (personal communication, February 23, 2017).

According to Noel et al. (2008), economically disadvantaged preschoolers reside with parents and caretakers who often suffer from stress and depression. Parental emotions are heightened due to a lack of monetary funds, economic resources, transportation, affordable housing, the presence of violence, and a lack of support. Isabella expressed concern about monetary funds and affordable housing. Ana expressed concern about isolation and a lack of family and friend support. Ynez also discussed having a lack of economic resources and monetary funds during her interview. She also expressed feeling exhausted due to not having the opportunity to relax (personal communication, April 4, 2017).

Discussions with Ynez revealed her lack of self-confidence as a parent and stress due to living with multiple family members while also working and trying to complete daily tasks. During the PACT meetings, Ynez was observed smiling and interacting with the other parents, but she did not attend all of the meetings I observed and always arrived after they began. She chose the afternoon preschool session, so she was in the afternoon PACT meetings. She chose the afternoon session because she slept in late (personal communication, April 4, 2017).

The PACT activities seemed less meaningful to Family 3. Ynez relished the free children's books provided for her daughter, and together they would read the books before performing the day's group activity. During the activity, some discussion occurred, and Sofia often repeated the directions her mother gave. Most of the time together was spent reading while the other families made crafts or snacks together (personal communication, February 23 and March 23, 2017).

The interview of Ynez was revealing. She asked for a specific date, time, and place to be interviewed. Her life was busy, and she was concerned about leaving her infant son at home with her boyfriend's mother before feeding him. As Ynez was still breastfeeding her son, I understood her needs and met Ynez at a restaurant after she dropped her daughter off at preschool. The other two parents had agreed to be interviewed following the PACT meetings, but Ynez stated she would have no time to do this. Again, Ynez described a hectic lifestyle with little time for conversation (personal Communication, March 23, 2017).

Ynez was going to school to get certified as a CNA. She was the only parent who was working and had taken any college courses. Conversations with Ynez were comfortable for me. It was evident that Ynez enjoyed the interview that took over 2 hours to complete. She was enthusiastic throughout the interview and said she was never able to do anything for herself and that talking to me was a positive experience for her (personal communication, April 4, 2017).

Ynez stated that her children "fill me with a sense of pride." Ynez described her busy day-to-day schedule but admitted that she was not a structured individual. She got up late and went to bed around midnight. This schedule was also followed by her daughter. Ynez admitted that when she was a young child, she would stay up late to see her father come home from work. Having this lifestyle caused Ynez additional stress because she said she always felt rushed to get out the door and take her daughter to preschool or get to work on time (personal communication, April 4, 2017).

Ynez said she did not feel supported by her boyfriend with regards to childrearing. She also stated that she was uncomfortable living with her boyfriend's parents because she did not feel like it was her home. Her family was living with them because her boyfriend's parents had lost their house. Though the home those parents were renting was in the boyfriend's parents'

name, both she and her boyfriend worked to support all of them. Her boyfriend's father also worked but could not support his family without their help. Ynez spoke about her desire to have her children grow up in a home of their own (personal communication, April 4, 2017).

Of the three parents interviewed for this study, Ynez appeared to worry less than the others about her children. She enrolled Sofia in preschool but was strongly advised by her family not to do so. Her family warned that Sofia was too immature and would not perform well. Ynez admitted that her daughter was shy and did not talk to other adults or children outside the family, but she felt preschool had been a positive experience. Ynez described herself as being shy and not outgoing, much like her daughter. She said this had prevented her from making friends. She did make friends with a neighbor who was supportive of her and her children. She did not mention having any close friends around her. Ynez met families through church but did not consistently attend (personal communication, April 4, 2017).

Ynez described in detail the things she wanted most for her children. She emphasized the fact that her faith was important to her, and she wanted to raise her daughter to be faithful and have strong moral character. She stated that what she wanted more than anything was for her boyfriend to be more supportive of her and to be more involved with her children. He worked 12-hour shifts to help support his family. His lack of involvement prevented Ynez from doing things for herself, which included getting her homework done immediately after work and going to bed in a timely manner. For these reasons, Ynez admitted that she continually felt overwhelmed and anxious. Ynez also suffered from a sense of guilt because she did not have time to play with her children. She hoped to have more quality time with them in the future (personal communication, April 4, 2017).

Ynez was able to quickly answer what her goals were for her daughter which indicated she had previously determined them. Ynez wanted her daughter to be bilingual, and she understood the future benefit of speaking in both English and Spanish. Ynez also wanted her daughter to overcome her shyness. Ynez stated that being shy hindered her own progress in school, and she did not want that to happen to her daughter. Ynez reflected on her child's development and stated that she didn't think she talked to her daughter enough when Sofia was younger. She also stated that she had improved in the way she speaks to her daughter, which was more positive than before. Ynez added that the television was always on in her home which added another hindrance to healthy conversation. All of these factors provided Ynez with feelings of guilt and anxiety (personal communication, April 4, 2017).

All three parents in this study expressed concern about their children, and all demonstrated the emotional attributes of stress and anxiety. According to a previously mentioned study by Raver et al. (2012), chronic exposure to poverty and psychological stressors increase a child's reactivity to stimulus in a negative way and decrease learning ability. Mother-child interactions were explored by Ursach et al. (2013), and their research supports the idea that inhibitory control, attention, and working memory are all influenced by negative interactions due to the emotional factors caused by poverty. These emotional factors are heightened by chaos within the home and can predict academic success prior to kindergarten. The following theme presents evidence to further support this theory.

Theme 3: Child participant behaviors demonstrate a lack of attentional control. The relationship between a caregiver, a child, and the environment within a home affect the development of executive function. Because executive function develops slowly, poverty can

leave an indelible mark upon it (Dilworth-Bart, 2012). In early infancy, attentional control, inhibitory control, and working memory begin developing.

Attentional control is a component of executive function that allows a child to maintain engagement while ignoring distractions (Dilworth-Bart, 2007). I observed many instances where Tomas and Luka had difficulties maintaining concentration in the classroom. When distracted, both children were observed not participating fully in classroom activities and missing periods of whole-group instruction. Sofia did not appear connected to the classroom routines, and she often seemed lost during transitions.

I recalled Isabella actively participating in a PACT discussion regarding discipline. She mentioned her son's difficulties with transitions. Isabella tried various strategies to assist Tomas with transitions: her phone, a timer, and an hourglass. Nothing had worked. I remembered Isabella laughing as she spoke but could hear the frustration in her voice (personal communication, February 23, 2017).

At times, Tomas appeared to not notice others. During the first day of observing Tomas, I entered the classroom, and several students looked to see who the visitor was. The adults smiled and said, "Hello", and so did most of the students. Tomas did not acknowledge me and continued to paint. When the teacher instructed the students to switch activities, Tomas did not immediately stop what he was doing and put his paints away. This would indicate difficulties with transitions. Children who were working in this station with him quickly cleaned up the paints and went to wash their hands before moving to the next station. Tomas was observed to finally notice the transition, and he started to put his paints and picture away. He did not go to wash his hands but wiped them on his shirt, so he could quickly move to the next activity (personal communication, February 23, 2017).

During the second day of observations, Tomas was observed during a whole-group lesson. The teacher led the students, who were standing in front of her, in a song that included hand signaling and various movements. This activity lasted 5 minutes, and at no time did Tomas participate. His eyes moved from the teacher to the students, and he swayed back and forth, at times moving his head about. Children were then seated on the carpet as the teacher read a story in Spanish. She asked the students many questions about the story, and hands were raised in the hopes of being called upon to answer. This activity lasted 15 minutes, and Tomas sat on the floor, rolled his head around and once moved his face towards another student. His gaze was only briefly on the teacher, and he never participated in the discussion (personal communication, March 23, 2017).

Tomas continued to display inattentive behavior during two of the three observed parent and child bonding activities after the PACT meetings. On two occasions, Tomas crawled under a table and appeared to ignore his mother's requests for his assistance. The books that were given to Tomas by the preschool were ignored, and Tomas rarely made eye contact with his parent when she tried to have a conversation or read with him at the meetings (personal communication, February 16, 23, and March 23, 2017).

At the last classroom observation of Tomas, I observed the Title 1 teacher working with a small group of students. She was teaching a math lesson, and Tomas was seated at a small table with the teacher and two other students in the stairwell. He maintained focus and followed the teacher's directions. I had not seen Tomas focus on an activity until this observation. Perhaps it was the small, quiet setting. When the students were taken back to the classroom, the teacher said to me, "He is doing much better than when he started. In the

beginning, he could not sit still. He was bouncing in his chair a lot and could not focus” (personal communication, April 4, 2017).

The preschool documents retrieved for Tomas included preschool assessments and questionnaires completed by Isabella. The parent indicated that Tomas had difficulties focusing on an activity. On the child and family history form, Isabella indicated that Tomas was hyperactive and failed to listen to adults.

Like Isabella, Ana revealed in the parent questionnaire that Luka had difficulties with focusing on an activity. Under the social-emotional components of Teaching Strategies Gold, Luka scored a 3 in following limits and expectations. The average score for students his age in this area was 6.

The observations of Luka revealed inattentive behaviors, but he did not demonstrate a lack of engagement as Tomas did. The behaviors showed Luka as being highly distractible. Luka appeared restless, and the classroom teacher redirected his attention on many occasions. During the first classroom observation, I entered the classroom, and Luka was immediately excited to see a new person in the classroom. He waved at me, but had difficulties with refocusing on the instruction. The teacher said his name, and he turned back to face her. Knowing there was a stranger in the room proved to be too distracting, and Luka continued to turn around. The teacher appeared frustrated with Luka’s behavior, so I eventually left the classroom (personal communication, February 23, 2017).

During the second observation of Luka, I sat in an obscure corner of the classroom behind the students. Luka was seated on the floor with his classmates as the teacher read a book. He had difficulties with remaining seated on his bottom and moved onto his haunches several times. He appeared excited as she read a story. I noticed that Luka talked a great deal

throughout the reading of the story, and his excitement became contagious. The teacher had to stop reading and waited for the children to stop talking. At this point, Luka noticed me and waved. Other children turned around and waved as well. Once again, I became a distraction and left the classroom (personal communication, March 23, 2017).

Luka was observed during the parent and child bonding activities. During each of these observations, Luka was observed as being engaged and focused during each craft. I wondered whether the structure of the activity and the hands-on component allowed Luka to focus more clearly (personal communication, February 16 and March 23, 2017).

On a different occasion, Luka and Ana were in the childcare room. He entered the room and immediately began pulling toys from the shelves onto the floor. It wasn't until Ana brought a wooden train set over to him that he was able to focus. Ana said this was because he had a similar train at home. Luka, however, was unable to play by himself for more than a few minutes. I tried to use this observation time as an opportunity to interview the parent. Multiple interruptions made this interview difficult to conduct (personal communication, February 23, 2017).

When Sofia was observed during the parent and child activities, she always ran into the room. On one occasion, Sofia ran into the room and over to the wrong parent. Her mother was calling her name, but Sofia froze in her tracks when she realized she was with the wrong parent. This took a few minutes. She did not notice her mother calling her until Ynez finally stood up and waved her arms (personal communication, February 23, 2017).

Documents collected about Sofia included a parent questionnaire and Teaching Strategies Gold. Neither document indicated a concern in regards to inattentiveness for Sofia. Sofia exhibited inattentive behaviors during observations but not to the extent of Tomas and

Luka. Sofia participated in classroom activities, sat still during teacher-directed lessons on the carpet, and followed directions. Transitional activities, however, appeared difficult for her.

Sofia was observed in the classroom on two occasions. During the first observation, Sofia was observed following directions and maintaining focus to complete activities. The preschool day consisted of teacher-directed instruction and multiple activities. Signals were given by the teacher that denoted a transition to the next activity. Every time the activity switched, Sofia ran to get to the next activity. She was observed running to wash her hands, running to get a snack, and running to the carpet for a singing activity (personal communication, March 23 and April 4, 2017).

Theme 4: Child participant behaviors demonstrate a lack of inhibitory control. The ability of a child to stop what he or she are doing, or delay gratification is known as inhibitory control. Inhibitory control, like attentional control, is a learning skill derived from executive function which also develops in early childhood. According to Blair (2012), a child's experiences during early childhood shape brain networks, and "children in poverty tend to present resting levels of stress hormones (cortisol) that are higher or lower than children from higher income homes" (p. 21). Chronic exposure to poverty and psychological stressors increase a child's reactivity to stimulus in a negative way and decrease learning ability (Raver et al., 2012).

Tomas demonstrated multiple instances of peer conflict. During the first classroom observation, he was observed taking blocks from a student, placing a block on another student's face, and throwing paper at the same boy (personal communication, February 23, 2017). At the second classroom observation, he pushed his body into a boy standing behind him, made

threatening faces, and accused another student of being a liar (personal communication, March 23, 2017).

Isabella described Tomas as “very rebellious and a troublemaker.” She had received notes from school stating that Tomas didn’t listen and bit other children. According to Isabella, “You tell him not to do something, he does it.” Isabella also said, “If you tell him not to do something, he will punch you or hit you. I see he is different from other kids” (personal communication, February 23, 2017).

Preschool documents about Tomas included the child self-help and social-emotional scale. Isabella indicated that Tomas had difficulties with accepting disappointment, sharing, and turn taking. On Teaching Strategies Gold, Tomas scored a 2 in managing feelings, balancing the needs and rights of others, and solving social problems. The average score in these areas for a preschooler his age was a 6.

Preschool documents about Luka included the parent questionnaire and Teaching Strategies Gold. Ana indicated that her child sometimes had difficulties with co-operative play. Teaching Strategies Gold revealed that Luka scored a 3 in interacting with peers, making friends, and balancing the needs and rights of others. The average score for peers was 6.

Luka had been receiving therapy since the age of two. Ana noticed Luka chewing on his arm “a lot.” He would also throw things, and Ana had seen him become aggressive and hurt himself. Ana sought psychological support for Luka, and he had since been diagnosed with anxiety (personal communication, February 23 and March 23, 2017).

Luka was never observed interacting with other students. He conversed easily with adults and preferred to play alone. Ana indicated on the preschool documentation that Luka had never been in childcare and did not play with other children. His social isolation, as indicated

by the preschool qualification form, would indicate that Luka had been unable to develop social skills that would make him successful in school.

Ynez, in contrast to Isabella and Ana, expressed the greatest concern over her daughter's shyness and lack of self-confidence (personal communication, April 4, 2017). Evidence of Sofia's shyness and lack of self-confidence was supported through the observations and preschool assessments. Sofia was never observed interacting with other students in the classroom and never had conversations with anyone other than Ynez. She did not participate in class discussions or answer questions posed by the teacher (personal communication, March 23 and April 4, 2017).

The parent questionnaire revealed that Sofia had no close friends and did not play with other children. Ynez displayed concern over her daughter's lack of self-confidence, turn taking and playing appropriately with others. Teaching Strategies Gold's social-emotional component assessed Sofia as being well below same-age peers in managing feelings, responding to emotional cues, interacting with peers, and balancing her needs with the rights of self and others.

Theme 5: The relationship between the parent and child influences language development. This study explored parent and child relationships and the influence poverty has upon those relationships. Family relationships appear to be powerful in the development of executive function. Observations of the three children in this study revealed a lack of attentional and inhibitory control. Observations also revealed a lack of working memory, another aspect of executive function. Working memory is increased during language development (Dilworth-Bart, 2012).

Language is social. It allows for communication between individuals. Language is also the basis for reading, understanding, and learning. In a low-SES environment, conversations between a parent and child most often serve a practical purpose. The parent issues directives, such as “Go get your sister,” or “Clean your room.” Annette Lareau wrote that middle-class children negotiate with parents, and discipline involves lengthy conversations. Children are allowed to negotiate, and this extends vocabulary usage and increases semantics (i.e. the meaning of words) and pragmatics (i.e. contextual usage; 2011, p. 107). Children in a low-SES household are not allowed to negotiate.

The ability of children to use language in both the home and school environment was observed through interactions and work samples. Semantics, pragmatics, and syntax were observed during the children’s conversations with parents, teachers, and peers. Preschool documentation presented evidence that either agreed or conflicted with the gathered findings.

In this study, Isabella and Ynez were never observed having lengthy conversations with their child. Ana, in contrast, was observed describing what her child was doing when he played with a train: “Oh, I see you are making a bridge” (personal communication, February 23, 2017). Luka was observed asking his mother many questions during the PACT activities. Ana always answered his questions and focused upon her child. During the interview, Ana said her son watched 1 to 2 hours of television a day. She watched television with him when he asked her to. Her conversations with her son included asking him how his day was at preschool and what he ate for snack. These questions elicited one-word responses or no response at all. In the classroom, Luka was never observed having conversations with other children (personal communication, February 16, 23, and March 23, 2017).

Tomas never asked questions in the classroom and never answered questions the teacher asked after reading a book to the students. Isabella seemed to struggle with having interactions with her son that would elicit conversation (personal communication, February 17, 23 and March 23, 2017). During the interview process, Isabella acknowledged that her son watched television, but she also stated that she watched it with him. She did not state that conversations about television occurred at these times (personal communication, March 23, 2017). The preschool document Teaching Strategies Gold indicated Tomas as scoring a 1 in semantics and pragmatics, which is way below the average score of 4.

Sofia was observed speaking minimally during the observations. In the classroom, I never observed the child speaking to either the teacher or other children. During the parent and child activities, Sofia was observed repeating her mother's words while sharing a book. She never asked questions (personal communication, February 23, March 23, and April 4, 2017). During the interview process, Ynez acknowledged her daughter's lack of communication skills and understood that it could affect her future reading ability. She stated that her daughter had difficulties with formulating questions, providing responses, and articulating her thoughts (personal communication, April 4, 2017). Preschool documentation revealed below average skills for Sofia. The Brigance Screener determined her to have below average language skills, specifically with labeling objects, which is a strong indicator of vocabulary knowledge.

Syntax refers to the rules of language. Conversations elicit practice for children to understand how to create sentences, where to place words in a sentence, and grammatically appropriate usage. Luka was observed using full sentences with Ana. When reading together, Luka asked many questions about the pictures in the books. Tomas and Sofia were never observed using sentences with more than 3-4 words. In fact, Sofia responded to her parent

many times by nodding her head and pointing. During the parent and child bonding activities, Ynez would ask Sofia what ingredient or craft item she would like, and Sofia responded by pointing and never used words (Personal communication, February 6, 23, March 23 and April 4, 2017).

A child with an extensive vocabulary moves from simplistic to more complex sentences. The preschool had assessed all 3 child participants on the usage of prepositions and irregular plural nouns. The Brigance Screener for Tomas revealed an age level of 2 years and 8 months when the child was 3 years and 9 months of age. He was able to use irregular plural nouns but not prepositions. The Brigance Screener for Luka scored him in the average range at the age of 3 years and 8 months. He was able to use irregular plural nouns and prepositions. Sofia was assessed at the age of 3 year and 8 months and scored below average for language development. She was able to use prepositions but not irregular plural nouns. This assessment for Sofia was surprising to me because she was never observed speaking extensively.

Three components of oral language (i.e. semantics, pragmatics and syntax), demonstrate each child participant's expressive language skills. Phonology, the fourth component, depicts each child participant's ability to hear and decipher the sounds in language. Hearing the sounds in language is necessary for eventually decoding words and reading sentences (Blamey & Beauchat, 2016). Conversations and reading in the home increase a child's ability to hear and recognize the sounds within letters and words. Previous research indicates that children from poverty score lower on phonological awareness due to decreased conversations in the home (Neuman, 2008).

Information gathered from preschool documentation revealed the child participant's ability to discriminate phonemes (i.e. parts of sound). No child participant was able to read, so I

was unable to collect additional evidence to support the assessed findings. Tomas scored 1 in Spanish literacy, his primary language, for sound discrimination and identifying letters and sounds. This is the lowest score he could achieve. His health screening revealed that Tomas had normal hearing and vision. Work samples completed before preschool began in September revealed that Tomas knew 0 upper-case and 0 lower-case letters. By May 2017, Tomas could recognize 6 upper-case and 4 lower-case letters.

Luka's lowest score was in the literacy category. Teaching Strategies Gold revealed a score of 1 for discriminating smaller units of sound. He scored 2 on discriminating rhyme. The average score for same-age preschoolers was a 4 in both activities. Luka had no hearing or vision issues. Work samples revealed that at the start of preschool, Luka knew 24 upper-case and 22 lower-case letters. Letter recognition scores for Luka were significantly higher than the scores for Tomas and Sofia.

Sofia was screened for hearing and vision problems. It was noted that Sofia was difficult to test, and her vision results were not attainable. It was recommended by the preschool that Sofia be retested for hearing because she did not respond to low tones. The results of the hearing test could reveal the source of Sofia's difficulties with phonological exercises. Sofia scored 2 for noticing and discriminating rhyme. Like Luka, she scored 1 for discriminating smaller and smaller units of sound and using letter-sound knowledge. All three child participants scored low in phonological assessments that could impact later reading skills.

Theme 6: The reading habits in the home environment influence vocabulary and literacy skills. All three families in this study had limited financial resources that could have affected their reading habits. The number of library excursions was often a reflection of a parent's available resources, and often not a reflection of desire. Two of the three parents were,

admittedly, not avid readers, though they understood the importance of reading with their child. The interviews of parents in this study provided evidence of diverse reading environments. Parents presented various degrees in which they modeled personal reading habits for their child (personal communication, February 17, 23, March 23, and April 4, 2017).

I asked all three parents about literacy and the reading habits in the home. Their responses provided various levels for exploring why children who live in an impoverished environment do not become strong readers. As an educator, I understood that the concept of reading could elicit an emotional response in a parent because of his or her negative school experiences during childhood. Isabella told me that she experienced negativity while attending school, but her experiences seemed more about feeling marginalized due to her ethnicity. Ana appeared disconnected towards school and never mentioned whether it was easy or hard, but she said that she enjoyed only the social aspect. Ynez clearly stated that she did not read until third grade, and she felt like things happened to her in school that she did not understand. I wondered whether Ynez's reading difficulties as a child influenced her reading habits as an adult (personal communication, February 23, March 23, and April 4, 2017).

Isabella enjoyed reading and preferred to read biographies and nonfiction. She was able to speak about the genre she preferred to read most, which demonstrated that her reading habits were more sophisticated than the other two parents in this study. Isabella was the only parent who could speak about her love of reading, and her facial expression showed joy about the activity. I was pleased that Isabella enjoyed reading and pleased that she loved books. The more exposure Isabella had to reading books, the more her vocabulary would increase and her conversations with her son would contain a wider vocabulary (personal communication, February 23 and March 23, 2017).

The other two parents never read actual books for their personal enjoyment. Ana admitted that she did not have “grown-up” books. She read magazines and read on her phone. She read People magazine and used her phone to research current events. I thought that neither activity would provide the same level of mental stimulation that a book would, and the parent’s vocabulary would not expand to the extent Isabella’s vocabulary would. Ana was the only parent who understood the importance of showing her love of reading to her child. She stated that she wanted her son to see reading as being enjoyable (personal communication, February 23 and March 23, 2017).

Ynez was going to school at the time of the interview, but it was not clear whether she read textbooks or whether her reading material was all online. Ynez clearly stated in the interview that she did not enjoy reading. The only adult book she owned was the Bible. I understood that reading difficulties in childhood may still affect Ynez. Also, if reading was difficult, the desire to read could be nonexistent (personal communication, April 4, 2017).

The number of books in each home differed for each family. The activity that proved to be the same was the time when reading together occurred. Isabella read to her son daily, mostly before bedtime. Isabella made reading time comfortable and a time for sharing. Tomas sat on his mother’s lap or laid down beside her. Isabella said her son participated by asking questions as she read. She received books from the preschool at every PACT meeting, and she said that her son had favorite books that they read over and over again. Though she admitted the family owned few books, she took her son to the library twice a month (personal communication, February 23 and March 23, 2017).

Ana described reading time with her child as also occurring at night. Ana said she did not need to read books to her son because he knew the stories and would tell them to her by

looking at the pictures. Having her son “read” the books to her gave him additional practice with expressive language. I wondered if Ana could have had difficulties with reading and whether that could be why she did not read to her son. Ana learned to speak English while attending school, but it was not clear if she could read English well. Ana said she would “act out” the characters in the books and change her voice to match their feelings in the story. She said her son enjoyed this. Ana said she did not own any books. Luka owned books and kept them in his room. Family 2 also went to the library twice a month, and Luka had his own library card (personal communication, February 23 and March 23, 2017).

Ynez said that her daughter had a children’s Bible and owned books given to her by the preschool. She read books to her daughter at bedtime while nursing her son. Ynez acknowledged that the attention she gave to her son took attention away from her daughter during reading time, but she did not have enough time to do both activities separately. Ynez always tried to give positive feedback to her daughter who read the books to her mother by looking at the pictures. Ynez, like Ana, did not own adult books. She said they have visited the library only a few times, and Sofia had checked out a book from there only once (personal communication, March 23 and April 4, 2017).

Exposure to language through book reading and conversations increases vocabulary acquisition and comprehension skills. Comprehension is the most sophisticated stage of reading, and develops after phonics, phonemic awareness, and vocabulary. According to Marulis and Neuman (2010), children from low-SES homes typically struggle with the primary components of reading - phonics and phonemic awareness, otherwise known as decoding - but most will master them in the primary grades. Once students move from learning to read (decoding) to reading to learn, significant learning gaps become most apparent. Susan

Neuman's research (Marulis & Neuman, 2010) indicates that the gap between students from poverty and middle-income students becomes most apparent in Grades 3 and 4 when students begin reading to learn and higher order thinking skills, procedural skills, vocabulary knowledge, inference ability, evaluation, and narration are paramount to reading success. As previously discussed, executive function is demonstrated through attentional and inhibitory control. It is also demonstrated through working memory that aids in comprehension, specifically in the area of narration. Narration plays a critical role in the development of early literacy skills, and deficiency in this area creates a large learning gap between children from a low-SES environment and other students (Marulis & Neuman, 2010).

Working memory stores information and processes linguistic information. Research has shown a strong correlation between working memory and reading comprehension because "reading comprehension depends in part on the capacity of working memory to maintain and manipulate information" (Florit et al. 2009). If a child experiences more spoken language in the home, more connections are made in the prefrontal lobe of the brain which is where executive function resides. Listening comprehension evolves through more conversations and will one day affect a child's reading comprehension (Florit et al. 2009).

Working memory can be influenced by chaos in the home. Parent interviews and observations presented evidence of disorganization and instability, components of a chaotic home environment. Tomas was being raised in a home with eight inhabitants, which denoted an environment with noise and distractions. Family members endured periods of unemployment which added another layer of disruption to Tomas' early childhood development. Parental emotions indicated stress factors that included the fear of deportation and receiving government

financial assistance, which further affected Tomas' executive function and language acquisition (personal communication, February 23 and March 23, 2017).

Luka lived in an environment that appeared solitary. Ana indicated on her son's application that the family experienced social isolation. Lack of family support for Ana increased the potential for stress and possible depression. In addition, Ana was late for PACT meetings and impressed me as being disorganized. Disorganization leads to a chaotic environment and it has been suggested to affect language acquisition and executive function (personal communication, February 16, 23, and March 23, 2017).

Ynez demonstrated feelings of frustration and often stated she was unable to spend more time with Sofia. Ynez was always in a hurry, was late for PACT meetings, and Sofia did not always attend preschool. Ynez came home from work late and due to disorganization Sofia did not get to bed until late. All findings demonstrate evidence of disorganization. In addition, Ynez stated that the television was turned on in the household throughout the day. Because she lived with her relatives and not separately as a family, the household was an environment of instability for Sofia (personal communication, March 23 and April 4, 2017).

Spencer and Slocum (2010) emphasized the importance of narration in their study when they stated, "Narration, or storytelling, is defined as orally presenting causally related events or an event in temporal order" (p. 178). Once a story is read, a child who develops normally should be able to tell the events in the story. A child who has experienced healthy executive function development, thus a healthy working memory, is able to remember details in a story, is able to sequence the events, and can clearly articulate the story. If a child grows up in a home that is disorganized and unstable, the child's ability to accurately narrate may be delayed.

The reading habits and conversations of parents and children in this study provide meaningful evidence of decreased narrative abilities. Documentation from the preschool provided additional insight into the narrative characteristics of the child participants. Tomas scored 2 on the Teaching Strategies Gold assessment for interacting during read-aloud time and book conversations. The average child would also score 2. Additional evidence was found in classroom observations when Tomas never participated in question-and-answer sessions after the teacher read a story (personal communication, February 23 and March 23, 2017).

Luka was very active during read-aloud in the classroom, though his answers were often incorrect (personal communication, February 23 and March 23, 2017). He scored 2 on retelling stories, which surprised me because this was the same score as Tomas who never participated in the classroom discussions. In addition, Ana remarked that Luka was never read to because he knew all of the stories. Perhaps Luka's score would change if Ana read to him more often since he always appeared interested in reading.

Like the other two child participants, Sofia scored 2 in recognizing and retelling. This was not a surprise to me based upon the classroom observations. Sofia never responded to teacher questions or classroom discussions. In addition, Ynez admitted that she did not read books to her daughter at night; instead, her daughter made up the stories as she looked at the pictures (personal communication, March 23 and April 4, 2017).

### Synthesis of the Themes

This chapter presents the key findings of the study, which were extrapolated through coding methods. Two key components, behavior and language, categorized the themes extrapolated through inductive analysis of the findings. The themes regarding the behaviors of

the parent and child participants suggest that poverty plays a strong negative role in the development of executive function. The language usage and reading habits within a home suggest that poverty affects the vocabulary and reading development of children in ways that become manifest when a child enters preschool. The final chapter compares the major themes in order to answer the research question explored throughout this study.

## CHAPTER 6

### IMPLICATIONS

How does the development of language and executive function for a preschooler living in poverty influence vocabulary acquisition and early reading skills? The investigation of this question presented findings that suggest that poverty does indeed influence the development of executive function and language. The home environment shapes executive function and language, and the children in this study presented evidence that poverty impedes healthy development. The findings in this study reveal that the underdevelopment of executive function and language determines vocabulary acquisition and early reading skills. This chapter summarizes the findings, relates the findings to prior research, discusses the limitations of this study, and suggests directions for future studies.

#### Summary of the Findings

Within this study's review of literature, previous research proposes that executive function affects not only a child's ability to focus and learn but also affects comprehension and narrative ability (Spencer & Slocum, 2010). A child who enters kindergarten comes with an array of skills derived from environmental conditions within his or her home, conversations with caretakers, and exposure to resources that expand vocabulary and thinking skills. These skills are necessary for early reading success. By third grade, a child has learned to read and

moves towards literary activities that require comprehension and narrative skills. A child's ability to focus, learn, comprehend, and narrate derives from executive function, that resides in the prefrontal cortex of the brain and begins to develop during infancy (Garon et al. 2008). Vocabulary is acquired through receptive language, and connections are made prior to a child expressing wants and needs that eventually transforms into narration. Children living in a low-SES environment will learn to read, but all may not learn at the same rate, and some will learn years behind their peers. The delay in acquisition of early reading skills affects later reading skills in the areas of vocabulary and narration. A child who is unable to appropriately narrate (i.e. expressive language) will struggle with comprehension which affects all academic areas throughout school (Spencer & Slocum, 2010).

The relationship a child has with a parent is instrumental in predicting future reading success. Stressors within the home hinder the number of positive interactions a child and parent experience. As previous research suggests, a low-SES environment influences the development of executive function (Kiernan & Mensah, 2009). The findings in this study support the previous research and present evidence to support the fact that a child's low-SES environment produces stressors that hinder the healthy development of a child's executive function.

## The Findings Indicate That a Low-SES Environment Hinders the Development of Executive

### Function and Language

#### The Study Supports the Research That Shows That a Chaotic Home Environment Produces Disorganization and Instability

This study provides evidence, gained from parent interviews and preschool documentation, that a family living in a low-SES environment faces situations of continual crisis. Previous research indicates that crisis produces stress hormones that are at a significantly higher level and longer lasting if resources are not available to eliminate the stressors. Children living in a chaotic, low-SES household will experience instability and disorganization, byproducts of a parent's stress (Vernon-Feagans et al., 2012).

Disorganization, a factor of chaos in the home, was discovered in the research about the three families in this study. I encountered three families who experienced varied degrees of chaos. Disorganization appeared to permeate the family structures. All three families lived in a home that housed multiple family members. Families 1 and 3 housed grandparents who watched television throughout the day, which could create a high level of ambient stimulation for the preschoolers (Vernon-Feagans et al., 2012, p. 139). A lack of structure was reflected in the behaviors of Parents 2 and 3, who consistently arrived late for the PACT meetings. Ynez admitted to keeping her daughter up until midnight because she worked late. As a result, Family 3 woke up late everyday which created a cycle of tardy arrivals to the PACT meetings and preschool (Personal communication, February 17, 23, March 23, and April 4, 2017).

Instability, another component of chaos, was present in the home because financial resources were a concern for all three families. Family 3 supported the boyfriend's parents who

had lost their home. Both parents worked, but Ynez stated that she still had to deny her daughter material items that were not considered basic necessities, such as toys and nice clothing. Inability to provide for her daughter produced unhealthy guilt feelings for this parent. Ynez received books for her daughter from the preschool, and those appeared to be the only books she had in the home. Ynez implied that she did not feel comfortable living with the paternal grandparents. Her daughter did not watch children's television, and the TV stations were always turned to adult-themed programs. Ynez prepared few dinners for her family because her boyfriend's mother did most of the cooking. Ynez expressed a strong desire to have her own home, but her boyfriend was opposed to moving away from his parents. Ynez wanted more support from her boyfriend and more time for herself but was unable to acquire either (personal communication, March 23 and April 4, 2017).

Family 1 also struggled with financial resources, and Isabella demonstrated a high level of personal angst due to her current situation. She cried twice during the interview, which indicated the high levels of stress in her life. On her son's preschool registration form, unemployment was marked as a concern. Isabella had moved in with her family, and her boyfriend had obtained a job from her father collecting scrap metal which did not provide enough money to support her family. As an immigrant, Isabella was fearful of being deported and remarked that the current political climate of the country worried her because she did not want to be taken from her children. She worried about her sons, most especially Tomas who demonstrated negative behaviors at home and school. The worries of Isabella and Ynez were similar in that financial instability created pressures that permeated everyday life (personal communication, February 23, March 23, and April 4, 2017).

There appeared to be instability within Family 2 that was very different from that of the other two families. Ana never smiled and never interacted with the other preschool parents during the PACT meetings. I wondered if she was depressed and if she also suffered from anxiety, like her son. Ana experienced a lack of familial support. She lived in the home owned by her boyfriend's sister but did not appear close to her. Unlike the other families, she was not near her immediate family members because her mother and sister were living together in New York. She stated that she had no friends, and she did not try to meet new friends. Her son was diagnosed as suffering from anxiety at the age of 2, which created another layer of worry and stress for Ana (personal communication, February 17, 23, and March 23, 2017).

All three parents indicated on the preschool registration forms that they were not married. No parent reported instability in her relationship with the preschooler's father, and the three fathers all lived in the home. No information about the personal relationship between the mother and father was provided during the interviews of Isabella and Ana, but Ynez demonstrated frustration with her boyfriend and said on many occasions that she wished he were more supportive (personal communication February 23, March 23, and April 4, 2017).

The parent observations and interviews supported the research previously that states that chaos in the home creates disorganization and instability in the home. Both components influence the development of executive function. The next section reviews the findings that support this belief.

## The Study Supports the Research That Shows That a Low-SES Environment Influences

### Executive Function

According to the literature, the environment within an impoverished home influences executive function through three core skills: attentional control, inhibitory control, and working memory (Dilworth-Bart, 2012). The observations and documentation of the three children in this study support the findings in the literature.

Both Tomas and Luka exhibited behaviors that suggest difficulties with attentional control, which allows a child to maintain engagement (Garon et al., 2008). When observed in the classroom, both Tomas and Luka had difficulties with sitting still during direct instruction. Tomas had difficulties with transitioning from one activity to the next. Isabella stated that transitioning was difficult for Tomas, and she indicated her concern that he may have ADHD. Observations in the classroom supported the opinion that Tomas had difficulties with attention. His Title 1 teacher also stated that he had had a hard time sitting still since the beginning of preschool. According to Isabella, Tomas did not always follow directions at home and would often do the opposite of what she requested. During two of the three of the PACT activities, Tomas was never engaged and remained under a table throughout the activity, ignoring his mother's directions (personal communication, February 23 and March 23, 2017).

Luka also exhibited difficulties with maintaining engagement when classroom observations showed him unable to refocus when a visitor entered the classroom. Luka was very talkative, and his teacher was observed stopping instruction to redirect him on several occasions. Ana indicated worry that her son had ADHD. When Luka was observed in the

daycare room, he was throwing toys and had difficulties choosing a toy until his parent intervened (personal communication, February 23 and March 23, 2017).

Sofia did not reveal difficulties with attentional control, but she appeared confused when she was in a group. In the classroom, she followed directions but often appeared stressed when she transitioned to the next activity. On two occasions, she was observed in the classroom running to the sink until she realized there was a line of students awaiting their turn for hand washing. When she came into the PACT room, most children went immediately to their parents but Sofia always appeared confused and once went to the wrong parent (Personal communication, February 23, March 23 and April 4, 2017) .

Sofia did not show difficulties with inhibitory control. She was very quiet and did not stand out when completing an activity. In contrast, Luka demonstrated impulsive behavior. He shouted out answers when the teacher asked for raised hands. Most often, Luka was incorrect with his blurted-out answer. He was very talkative with adults, and this was apparent when his mother was being interviewed. He interrupted many times and was not observed settling down to play. Ana stated that he had been diagnosed as suffering from anxiety because he would inflict harm onto himself and throw things at home. She also stated that Luka would bite his arm. I was a witness to this behavior as well (personal communication, February 23 and March 23, 2017).

Tomas displayed the greatest difficulty with inhibitory control. He was aggressive with other students and was observed being physical. His mother provided a detailed description of Tomas's aggression at home. He threw things and hit others, including his mother. She also stated that she received notes from school about his aggression towards other students (personal communication, February 23 and March 23, 2017).

This study supports the research which shows that a chaotic home environment influences executive function in the areas of attentional and inhibitory control. Further findings will be examined that demonstrate how poverty influences the development of working memory, the third component of executive function, which plays a role in language development. The next section will discuss the study's finding that language development is hindered by an impoverished environment.

### The Study Supports the Research That Shows That a Low-SES Environment Influences Language Development

This study provided findings that support previous research that suggests parental stress influences executive function and the language development of young children. The relationship between a parent and child that aids in the development of executive function is the foundation for language development and begins during infancy (Salley & Dixon, 2007). Observations, interviews, and preschool documentation of this study provided evidence that language development is impeded in a low-SES household.

All three parent participants described difficulties in their own education experience. As previously noted, none of the parents were provided with educational support from their parents. As a result, parent modeling of educational support was never present, and experiences were not provided that would allow the parent participants to become future parents who were knowledgeable about ways they could affect the education of their children (personal communication, February 23, March 23, and April 4, 2017).

Vygotsky contended that thought begins as a social process, and he recognized the power that cultural and historic context have on a young child's development (Smagorinsky,

2007). Vygotsky (1978) theorized that thinking has a social and cultural framework that can be exhibited in the semantic use of language and in the social pragmatics of conversation.

Semantics and pragmatics of language are learned in the social context of conversations in the home. They are also practiced through play.

A child who is bereft of sufficient play has diminished cognitive skills, and this will affect his or her ability to perform well in the classroom (Neuman, 2010). All three parents in this study read books to and played with their child, but the amount of playtime varied amongst the parents. Isabella did not include playtime when she described her day-to-day activities. Ana stated that she expected Luka to be able to play by himself. She said his father spends time playing with him after work. Ynez stated that she wished she had more time to play with her child. None of the parents expressed the belief that play was important. In her study, Annette Lareau (2011) discovered evidence that coincides with the findings of this study. Lareau wrote that poor families emphasize natural growth as opposed to middle-class families who emphasize a pattern of concerted cultivation (p. 32).

Playing in solitude, however, does not include conversations that receive immediate feedback. Playing in solitude could decrease self-esteem and hinder oral language development. Classroom observations revealed that the child participants had difficulties interacting at preschool with other children. Tomas was observed interacting aggressively, and conflicts with peer relationships were evident on many occasions. Luka and Sofia were never observed interacting with any of the other children in the classroom. In fact, Sofia was never observed speaking in the classroom. Play in the home with another individual could provide opportunities to solve conflicts and to learn to share and work together. The semantics and pragmatics learned through play in the home could have assisted these students with peer

relationships and appropriate conversational strategies (personal communication, February 23, March 23, and April 4, 2017).

### The Study Supports the Research That Shows That a Low-SES Environment Influences Vocabulary Acquisition and Early Reading Skills

Conversations between parents and children in this study revealed a limited use of vocabulary and a limited use of higher order thinking skills. Conversations with the parents were more purposeful and not thoughtful. During the PACT sessions, directives were given, and few observations demonstrated any sharing of ideas. I wondered if this was due to stressful pressures on the family that prevented the parents from being fully focused on their child at all times. Previous research confirms this hypothesis (Noel et al., 2008).

The home environment should provide a preschooler with many opportunities to exercise speaking and listening skills, increase vocabulary development through book reading, provide exposure to outside activities, and increase engagement through questioning that increases a child's comprehension and narrative abilities. As discovered in this study, the home environment can negatively affect these skills by providing fewer opportunities for practice and exposure.

The family activities described by two of the three parent participants indicate limited activities outside the home. Ynez discussed Family 3 attending church and meeting with other families but only rarely. Ynez was unable to pay 1:1 attention to her daughter, and when reading a book, her daughter followed the pictures and talked about them to her mother while her brother was breastfed. As a family, they had visited the library only once. In contrast, Isabella said that her family goes to the library twice a month and she reads nightly with

Tomas. There were no mentions of visiting outside parks or doing other activities outside the home that would increase exposure to new vocabulary. Ana read to her child, and they also visited the library twice a month. In addition, family 2 visited the children's museum (personal communication, February 23, March 23, and April 4, 2017).

Participating in nightly reading, along with having many frequent and lengthy conversations, expands a child's vocabulary knowledge. In addition, activities outside the home provide background knowledge that adds to and reinforces a child's lexicon of words. Vocabulary and oral language are integrally related to background knowledge and create a strong foundation for a child's beginning to read. Through exposure via conversation, reading, and outside activities, words are added to the child's lexicon by making connections and determining the relationships between already-stored words (Neuman, 2008).

The three children were assessed regarding word knowledge before starting preschool. Tomas was presented with objects that he should be able to label at his age, but he was only successful with labeling half of them when tested by the Brigance Screener. Luka was able to label objects when tested by the same screener, and Sofia was below average for her age level with this skill.

The findings of this study revealed that parent participants had conversations with their children that were more directive and less inquisitive. If questions were asked, as Parents 2 and 3 described, they solicited cursory answers from their child. Some of the questions asked included, "How was your day?", "What did you eat?", and "How did you feel today?" During the PACT observations, I heard parents telling their children what to do when creating a craft or making a snack. The responses of the children included, "That is good" or "I like it." The ice cream treat activity could have included discussion about the scientific component of the ice

that once shaken with the milk, produced a frozen treat. The magic of this activity was never discussed, and inventive conversation starters were never initiated (personal communication, February 17, 23, and March 23, 2017).

Conversations between parents and children in this study revealed a limited use of vocabulary and a limited use of higher order thinking skills. Conversations were purposeful and not thoughtful. I wondered if this was because of stressful pressures on the family that prevented the parent from being fully focused on her child. Previous research would confirm this hypothesis in as did the results of preschool assessments gathered during this study's document collection.

Language development can affect phonics, phonemic awareness, and oral language skills (Marulis & Neuman, 2010). Child participants were assessed in these areas, and the results showed deficient skills for all 3 children. Students from poverty can lack the initial skills necessary to accomplish the primary components of reading, but most will master them in the primary grades (Marulis & Neuman, 2010). Once students move from learning to read (i.e. phonics and phonemic awareness) to reading to learn (i.e. oral language), however, significant learning gaps become apparent. For this reason, vocabulary and narrative skills were emphasized in this study.

Narration falls under the component of working memory, which is one of three factors that comprise executive function. Working memory stores information and processes linguistic information. Research has shown a strong correlation between working memory and reading comprehension because "reading comprehension depends in part on the capacity of working memory to maintain and manipulate information" (Florit et al. 2009).

Preschool assessments of all three child participants reveal deficient skills in the area of narration. Tomas could not repeat sentences when he was screened (using the Brigance Screener). His Spanish literacy was assessed through the Teaching Strategies Gold (his native language is Spanish), and he scored 1 for retelling stories (i.e. narration) and interacting during read-alouds (would indicate he does not do this at home). A child his age would score 4 on average.

Luka scored in the average range on the Brigance Screener for repeating sentences. On the Teaching Strategies Gold assessment, Luka scored lowest in the area of literacy. On a scale of 1 to 9, he scored 2 for retelling stories and rhyming. Marie M. Clay (2015) indicated that rhyming requires a child to listen and discriminate sound patterns. Children who struggle in this area have a difficult time learning to read. Sofia could repeat most sentences on the Brigance Screener. On Teaching Strategies Gold, she scored 2, on a scale of 1 to 9, for recognizing and recalling (i.e. narration). This was well below her same-age peers.

#### Executive Function and Oral Language Influence Vocabulary and Early Reading Skills

A child who is unable to appropriately narrate (i.e. orally present causally related events in a temporal order) will struggle with comprehension which affects all academic areas throughout school (Spencer & Slocum, 2010). In all three case studies, students demonstrated difficulties with narration and/or rhyming or both. As a result of the necessary interaction with family members, a child's working memory begins to develop which increases a child's ability to narrate. Conversations and reading within the home, in addition to play, increase oral language skills. Using already-stored vocabulary words during the practice of social semantics and pragmatics and making connections with those words to daily experiences increases a

child's lexicon of words. The relationship of a child to a parent is important to healthy brain development and emotional well-being. The development of a child's attention and inhibitory control depends upon having relationships and a home life that enables the brain to develop in a way that makes classroom learning possible.

The three case studies demonstrate the challenges faced by families who live in a low-SES environment. These challenges influence the development of executive function and oral language which ultimately influence vocabulary and early reading skills. The next section presents the limitations that could have affected the outcomes of this study, followed by future implications.

### Limitations

I presented possible limitations to this study in Chapter 3, the methodology. One limitation was the possible discovery that a participant would not meet the demographics of this study. This potential limitation came to fruition when it was discovered that one of the families initially chosen for this study proved to not meet this study's demographics. The father owned a carpet cleaning company. Their preschool-level son was determined to be at risk because he had an IEP that had been written to meet developmental and language needs when he was much younger. I did not discover this fact until the parent in this family was interviewed. I was required to eliminate that family as a participant and find another family.

Finding a third family participant occurred during my second preschool visit. For this reason, Family 3's case study included PACT activity observations but only two classroom observations. Because I worked full time as an elementary principal, only a limited number of days were scheduled for me to be away from work in order to conduct observations. My visits

were planned to coincide with PACT meeting days. When I received approval to conduct this research, it was winter. February would contain two PACT meetings, and March would contain one meeting. With limited PACT days, the next interviews had to be strategically completed, and being in the field required a high level of organizational skills on my part. Classroom observations occurred on the meeting days and also in April.

Working with families from a low-SES environment presented challenges with the observations and interviews. Parents did not always have transportation, and the dependability of the participants due to environmental obstacles and disorganization was a concern for me. Two of the parents were often late, and the uncertainty of their arrival created periods of apprehension for me. Late arrival limited the time parents were available.

Trust was invaluable to this research. The vulnerable position of the participants engendered a high level of commitment to their protection and comfort level when discussing intimate details about family life, education, and the possibility of reopening wounds from the past and present. During my past 2 decades in education, working with parents of special needs students and families from poverty, I have garnered a repertoire of skills for developing trusting relationships. Being an educator can automatically create hurdles for relationship building because parents quickly close themselves off if they feel intimidated or if they had negative school experiences that create feelings of distrust.

I was appreciative that Isabella and Ynez were open and did not hide their vulnerability during the interviews. Both were very receptive to me. As a result, I felt that information gained from the interviews of these two parents was honest and provided an authentic picture of their families and experiences. In contrast, I felt that Ana was closed off at times. Visually, she presented as an individual who was sad. She smiled during the meetings but did not interact

with other adults. When she sat one-on-one with me, she appeared distracted and worried. She did not exhibit any emotion, and when her son's anxiety was discussed, her affect never changed. The interaction with Ana proved to me that sometimes there are factors beyond any skill previously acquired that can limit a relationship if the other party is unable or unwilling to open up.

### Implications for Future Research

Because children from a low-SES environment experience fewer conversations, have less access to positive resources, and receive infrequent mental stimulation, they enter kindergarten with significant vocabulary gaps that impede literacy development (Neuman, 2003). I chose to investigate executive development and oral language of preschoolers who live in poverty. The information gathered focused upon a low-SES environment and family interactions within the environment which influence vocabulary and early reading skills. The concept of play was touched upon during the interviews, as a basis for exploring each child participants interactions within the home that included playtime. Research obtained from the readings of Vygotsky (1962, 1978), Lareau, and others provided further insight into the importance of play in language development. Lareau (2011) explored parental attitude towards the concept of play based upon social class. Annette Lareau observed families from different social classes and noted that parents raising children in poverty have a different perspective regarding playtime. Lareau (2011) wrote, "Boundaries between adults and children are clearly marked" (p. 138).

Clearly, the concept of play as a way to expand vocabulary knowledge through the use of semantics and pragmatics in different social venues, to increase expressive language

opportunities, and to elevate a child's sense of self is not valued in impoverished families who struggle with getting through the day. According to Lareau (2011), "Children's leisure activities are treated as pleasant but inconsequential and a separate world from the adults," (p. 83). The parent interviews in this study agreed with Lareau's study in that playtime was not a necessity in parents' opinion because the needs of the children were not perceived to be as great as the needs of the adults (personal communication, February 23 and March 23, 2017). More research is needed in this area to determine how the parent perception of play could influence vocabulary and reading skills.

Vocabulary is not only influenced by the number of opportunities a child has to communicate but also by the amount of exposure a child has to a wide assortment of words. This study explored the reading habits of the parents and children but did not focus upon the personal reading habits of the parents themselves. Each of the parents in this study had a varied degree of interest in reading as a private activity of theirs. Isabella enjoyed reading, and her choice of reading materials was more sophisticated than Ana's who solely read magazines and read on her phone. Ynez, in contrast, did not enjoy reading and had only taken her daughter to the public library once. I would like to know if Isabella has expanded her vocabulary because she enjoyed reading books that contain a much higher lexicon than most magazines and the casual use of a phone. If Isabella continues to read more and more books, will her vocabulary increase, and could that influence the vocabulary development of her son?

I suggest future research that explores the influence that playtime has upon a child's vocabulary when living in a low-SES environment. In addition, if parents who live in a low-SES environment read for pleasure, how does their choice of reading materials influence their vocabulary usage when talking with their child? Further exploration into playtime and parental

reading habits would add to the existing literature that addresses the influence poverty has upon the vocabulary and early reading skills of low-SES preschoolers.

### The Future for All Children

A preschool child who lives in poverty is born with the same potential as every other child. The infant's executive function is capable of developing as quickly as that of children who live in other impoverished economic levels. Joint attention between a caretaker and child provides the first opportunity for both receptive and expressive language. The crucial first few years of growth can influence a lifetime of success or failure. School is such a critical part of life. Yet, school can be either a haven for children whose families struggle to survive or torture for the same children who are constantly reminded that they have inferior resources.

Not only are the children in need of an environment which provides conversations and resources that increase vocabulary acquisition and fosters the development of healthy executive function. The parents are also in need of parenting supports that teach them how to promote their child's success like the PACT meetings in this study. A nationwide PACT program that is federally funded could help families like the ones in this study.

Limit situations in this study included not only poverty, but also the day-to-day challenges due to living as an immigrant and speaking another language. Being successful in school, as this study has shown, is also affected negatively by having parents who do not understand how to help their children navigate the educational system and children who feel marginalized due to their race. A nationwide PACT program could be created to address the needs of families who represent the immigrant poor and others who are a product of generational poverty. Being able to read well can provide children who live in poverty with an

opportunity to change their lives forever, but the families need more training in how to raise children who will be successful in school.

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## APPENDICES

APPENDIX A  
INTRODUCTION TO PARENTS

My name is Melissa Onesto. I am an elementary school principal, a parent and a student. I am conducting a study for my dissertation as a doctoral student at Northern Illinois University. I am passionate about education and believe that every child should have the same opportunities to perform well in school and reach his/her highest potential regardless of background! I believe that education is the key to future success. As the parent of a preschooler, I am sure you also share my beliefs and want the best for your child!

Life creates many challenges for all of us. We must work, take care of the home, find child care, feed and clothe our children, and keep everyone healthy. Some of us have greater challenges than others and sometimes the challenges we face are so great that we have little time for the fun parts to being a parent: playing with our child(ren), reading together and having long conversations. Some of life's stressors, many of which are financial, prevent us from taking care of ourselves as parents and all we can do is provide for others the best way we know how.

My research will involve the case study of 3 families whose preschoolers attend Todd Preschool. The purpose of my study is to explore the relationship between three preschoolers and their parents. I am researching the reading and language experiences of children who live in homes with limited financial resources. I am seeking to explore the ways in which language development and brain developmental influence the preschooler's reading readiness skills. I will interview each parent for 60 minutes. The questions I will ask are attached. I will also observe the preschoolers playing and interacting with their parent on 3 separate occasions at the preschool.

This study may provide educators with information about ways to influence language development in children, which is so very important to reading and school success. It may also provide information about ways to improve children's language and reading readiness skills.

Participation is strictly voluntary and can be discontinued at any time. Any information gathered during this study will be shared in its entirety with the participants. The research may be published in the future, but the identity of all participants will be protected and all names will be changed.

APPENDIX B  
ASSENT FORM

**PERMISSION FORM FOR PARENTS/GUARDIANS OF MINORS**  
**Department of Leadership, Educational Psychology, and Foundations**  
**Northern Illinois University**

Your child/ward is invited to participate in a research study titled: "A Multiple Case Study: Gaging the Effects of Poverty on School Readiness Amongst Preschoolers" being conducted by Melissa Onesto, a graduate student at Northern Illinois University.

The purpose of this study is to explore the development of language and brain development for three preschoolers from an environment with limited resources.

Your child/ward's participation in this study will last for 60 minutes each month for 3 months individually at the preschool and for 60 minutes a month for 3 months with the parent/family at the preschool. He/ she will be observed playing and socializing in the preschool and with the parent/family. The interactions between the parent and child will be observed and interactions between the child and other preschoolers. The language usage of the child will be observed during the parent and child interactions. Items that may collected during this time include drawings completed by the child and any type of writing the child performs. In addition, assessments which indicate the child's knowledge of letter naming and letter sounds may be collected if it will provide insight into the child's reading readiness skills. Assessments regarding your child's language skills may also be included.

The following are the foreseeable risks and/or discomforts for your child/ward could experience during this study: discomfort from being watched or discomfort from speaking. In addition, confidentiality could be jeopardized. Discomfort will be minimized by this researcher who will sit away from the child while observing. The researcher will ask the child if she can play with him/her and wait for the child's positive response before playing. Play will be used to build trust and will hopefully encourage the child to talk. Confidentiality will be protected by not using the child's name in the research and not sharing information with others.

The benefit of this study is to provide additional information regarding the language and brain development of preschoolers who live in homes with limited financial resources. This study will add to the current research and provide additional knowledge regarding the need to improve reading readiness skills for all children.

Information obtained from this research may be published in scientific journals or presented at scientific meetings, but that any information which could identify your child/ward will be kept strictly confidential.

Participation in this study is voluntary. Your decision whether or not to allow your child/ward, as well as his/her assent to participate will not negatively affect your child/ward. Your child/ward will be asked to indicate individual assent to be involved immediately prior to participation, and will be free to withdraw from participation at any time without penalty or prejudice.

Any questions about this study should be addressed to Melissa Onesto, 630-544-7464, and Dr. Kerry Burch, 815-753-9354.

If you wish further information regarding your rights or your child's/wards rights as a research participant, you may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

I agree to allow my child/ward to participate in this research study and acknowledge that I have received a copy of this assent form.

---

Signature of parent/guardian

Date

APPENDIX C  
CONSENT FORM

Consent for Participation in Doctoral Research Study  
**Department of Leadership, Educational Psychology, and Foundations**  
ADULT (18 or older)

I agree to participate in the research project titled, "A Multiple Case Study: Gaging the Effects of Poverty on School Readiness Amongst Preschoolers", being conducted by Mrs. Melissa Onesto, a doctoral student at Northern Illinois University. I have been informed that the purpose of the study is to explore the language and brain development of three preschoolers who live in families with limited financial resources.

I understand that if I agree to participate in this study, I will be asked to do the following: allow the researcher to observe me and my child at Todd Preschool during 3 occasions and provide a one-hour interview with the researcher.

I am aware that my participation is voluntary and may be withdrawn at any time without penalty or prejudice, and that if I have any additional questions concerning this study, I may contact Melissa Onesto at 630-544-7464 and, Dr. Kerry Burch at 815-753-9354. I understand that if I wish further information regarding my rights as a research subject, I may contact the Office of Research Compliance at Northern Illinois University at (815) 753-8588.

I understand that the intended benefits of this study include having my voice heard as the parent of a preschooler who deserves equal access to education. This research study will add to existing literature which will benefit children and parents and increase awareness of the affect living in an environment with limited financial resources has upon the future of children attending public school.

I have been informed that potential risks and/or discomforts I could experience during this study include A. Psychological/emotional harm if participants' identity is discovered and confidentiality is breached. B. Potential risk to the minors who partipate in the study include breach of confidentiality regarding student observations and school documents. C. The reaction of the participants towards content may be unexpected even when the researcher has attempted to demonstrate sensitivity at all times.

I understand that all information gathered during this experiment will be kept confidential by replacing identifiers with arbitrary data identifiers. Confidentiality of the location will be maintained through the use of false names along with the names of all participants. Each parent and child group will be identified as Family 1, Family 2, or Family 3. Each parent will be identified as Parent 1, Parent 2, or Parent 3 (if two parents are in the life of the child, then the other parent will be Parent 1b, Parent 2b, or Parent 3b, respectively). Each child will be child 1, child 2 and child 3.

I understand that my consent to participate in this project includes participation in an hour-long interview at the preschool which will be recorded. The interview questions will include my personal background, current home environment, parenting experience, educational beliefs, and literacy skills. I will also be observed interacting and playing with my child on 3 occasions for an hour each at the preschool. I may be asked to provide additional information related to my child such as outside assessments or activities performed at home which may be useful for this study.

My consent does not constitute a waiver of any legal rights or redress I might have because of my participation, and I acknowledge that I have received a copy of this consent form.

APPENDIX D  
FAMILY INTERVIEW QUESTIONS

The following questions were provided to the parent participant before the interview began. The participant had the opportunity to opt out of the interview process. The interview was recorded, then transcribed, by the researcher. Once transcription was completed, the interview tapes were destroyed.

The following questions do not have a right or wrong answer. They are designed to provide the researcher with information regarding the participants' background, current living arrangements, parenting views/supports, educational beliefs, and literacy practices. All information provided by the participant is confidential.

**Background:**

1. Can you start by telling me a little about yourself? Where did you grow up? What did your parents/guardians do for work?
2. What was school like for you?
3. Do you work? If so, can you give me a description of what you do?

**Home Environment:**

4. Can you share with me a little about your family: How many children do you have and what are their ages?
5. How long have you lived at your current address? Did you ever live anywhere else before this? Can you see your family moving anywhere else? Why or why not?
6. Do any extended family members also live with you? If so, will this be permanent?
7. What is your average day like? Can you take me through your morning, afternoon and evening routines?

**Parenting:**

8. How old were you when you had your first child? Please describe what was it like for you to be a first time parent?
9. Have you ever participated in a class which prepares you for parenting? If so, what was it like? Was it meaningful? If so, how?
10. Do you get a lot of family support? If so, what does this look like?
11. Do you have a support network within your community? Is there support that you would like to have that you don't have at this time?
12. Who is the head of the household? What does being the head of the household mean to you?
13. Being a parent can be demanding and exhausting. How do you give time to yourself?
14. How do you spend time with your children?
15. What does play time mean for you and your children? When does it occur, what does play time look like, where does it occur and who is involved?
16. If you could prioritize your belief in what your children need in order of importance, what does this look like?

17. Is there something, or anything, that you would want for your preschooler or any of your children right now that you find difficult to give them?

**Educational Beliefs:**

18. Do you have any goals for you and your family? Do you have goals for your preschooler? If so, how do you plan to achieve them?
19. When it comes to education, what do you believe children need to have before they enter kindergarten? What do you think are school readiness skills?
20. What do you think school will be like for your preschooler once he/she attends kindergarten?
21. Do you know what the expectations are for children who enter kindergarten?
22. What social expectations will there be for your child when he/she enters kindergarten?
23. How do you think your child will perform socially when he/she enters kindergarten?
24. What type of relationship do you have with your child's current teacher?

**Literacy:**

25. How often do you talk with your preschooler and what do your conversations look like?
26. How often does your child watch television and do they watch it with you?
27. Do you like to read? Why or why not?
28. When you do read, what do you read? How often do you read in the home?
29. Do you have books in the home? If so, what type and where are they kept?
30. Do you and your family visit the library? If so, how often?
31. Does your preschooler enjoy books? How do you know?
32. Do you and your preschooler read books together?