2020

The Relationship Between At-Home Reading Literacy Activities and Reading Literacy Scores of Beginning Kindergarteners

Shera Chantel Caviness
Walden University

Walden University

College of Education

This is to certify that the doctoral study by

Shera C. Caviness

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Markus Berndt, Committee Chairperson, Education Faculty
Dr. Donna Graham, Committee Member, Education Faculty
Dr. Nicolae Nistor, University Reviewer, Education Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

The Relationship Between At-Home Reading Literacy Activities and Reading Literacy Scores of Beginning Kindergarteners

by

Shera C. Caviness

ME, Cumberland University, 2000

MS, University of Memphis, 1998

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2020

Abstract

Approximately 33% of U.S. prekindergartners have trouble recognizing the English alphabet and their associated sounds. To compete and succeed globally today, children start early with English alphabet recognition and phonics instruction to develop fluent reading skills. The purpose of this study was to investigate the relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. Vygotsky's theory of social interaction and Piaget's theory of child development provided the theoretical basis for this study. The key research question focused on the relationship between parental recollection of at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy scores. Using an ex-post-facto quantitative design, data from 67 parent and student dyads were collected through a parent recollection survey and beginning kindergarteners' archival I-Ready literacy scores. A simple linear regression was calculated, which showed parental recollection of at-home reading literacy activities to be a significant, moderate, and positive predictor for beginning kindergarteners' reading literacy scores ($\beta = .473$, $t\ (65) = 28.57$, $p < .001$). Parental recollection of at-home reading literacy activities explained 22.4% of the variance in beginning kindergarteners' reading literacy scores ($R^2 = .224$). The results of the study provide further empirical evidence for the importance of incorporating at-home literacy activities to promote early childhood literacy and, hence, a basis for positive social change for kindergarten students and their parents.

The Relationship Between At-Home Reading Literacy Activities and Reading Literacy Scores of Beginning Kindergarteners

by

Shera C. Caviness

ME, Cumberland University, 2000

MS, University of Memphis, 1998

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

June 2020

Acknowledgments

I want to first and foremost thank God for allowing me to reach another milestone in my life. Thanks are extended to my daughter, Morgan Chantel. She has been more patient than one should be with her mom throughout the entire process. I would also like to thank the two team members that started this process with me: my mom, Dr. Elaine Caviness, and my friend/church member, Dr. Phyllis Hampton. I also want to thank my father, Samuel Caviness, for all his love and support. Lastly, I want to thank the faculty and staff and many friends who took the time to help me accomplish my goal and to never give up on me when the light seemed very dim.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

In general, students who needed remediation and intervention in reading literacy have trouble with reading and tend to receive poor test scores. Heilmann, Moyle, and Rueden (2018) indicated that about one third of entering kindergarten students do not recognize all letters of the English alphabet or their associated sounds. At-home parent engagement with activities in reading literacy could help to increase the knowledge of letters and letter sounds of at-risk students entering kindergarten. Theoretical and empirical research has demonstrated that families are children's first educators (Hamre, Hatfield, Pianta, & Jamil, 2014). All children benefit when families remain involved in children's learning after school entry (Nitecki, 2015).

Rahman, Bandeira de Mello, Fox, and Ji (2019) indicated that the three levels of reading literacy scores were divided among the above proficient, primary, and below basic levels. The fundamental step at the beginning level of reading literacy is the development of competency for proficiency at each grade level (Rahman et al., 2019). Two out of 3 students in the United States are struggling with reading on their grade level and are unable to complete grade-level positive effects on their academic achievement (Núñez et al., 2017).

This study was significant because an increase in kindergarten academic achievement for the study site school was beneficial to the students, the teachers, and the community. The goal of this research study was to examine the relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. In this chapter, I present a background

synopsis of the current literature that addresses the performance gap of students struggling in reading that exists in U.S. elementary schools today. The research question and the hypothesis and the theoretical framework of the study is discussed. I also provide the nature of the study, the definitions, the assumption, the scope and delimitations, the limitations, and the significance of the study.

Background

Allington (2017) acknowledged that teachers identified potentially struggling students by assessing kindergartners' letter name knowledge. Daly, Neugebauer, Chafouleas, and Skinner (2015) indicated that two thirds of beginning kindergartners already knew how to recognize the letter names; however, the remaining students in their study struggled to identify the consonant sounds and had little understanding of the letter names and sounds.

Consequently, supporting more knowledge of reading literacy for kindergarteners is the first step at the beginning of learning literacy programs for these struggling readers (McGee & Richgels, 2014). Entering kindergarteners with little or no general knowledge of letters of the alphabet and consonant sounds may struggle. Enlisting parents to assist at home with letter-sound experience during the prekindergarten years is a way of erasing the performance gap in practice in reading. The purpose of this ex-post-facto, quantitative, correlational research study was to determine if there was a relationship between parental recollection of at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy scores.

Problem Statement

The problem that prompted this study was that one third of entering kindergarten students did not recognize or understand all letters of the English alphabet or their associated sounds (Heilmann et al., 2018). This issue was evident in the district in which I teach and was of importance to the teachers, administration, and community because each year, some kindergarten students struggled to acquire basic alphabetic knowledge. For example, at the study site school, in the year before this study, 12 of the 20 (60%) enrolled beginning kindergarten students scored below the targeted 13% reading level on baseline tests, indicating that they needed intensive support. Additionally, 16 of 20 students (80%) scored 35 out of 100 or below, showing a need for strategic backing with learning letter names.

Kindergarten students needed to have some exposure to literacy developmental reading skills prior to school entry. Sundberg et al. (2016) suggested that children who struggle in prekindergarten learning activities had the opportunity to receive extra activities and lesson preparations to improve their necessary skills in reading. Solari et al. (2014) indicated that many students came to kindergarten without the needed foundational skills in reading literacy and language essential to be active, knowledgeable learners.

There was a gap in reading practice exhibited in the students' ability to read at the study site. Heilmann et al. (2018) stated that one third of the entering kindergarteners struggled with reading skills because they did not understand the letters names and sound recognition associated with those letters. During the period that children were at home

with parents as the first teachers, reading skills were developed with the prekindergartners first year at Head Start (Heilmann et al., 2018). Reading activity materials were available for the prekindergartners in books, educational toys, free videos, and phonemic technologies. Solari et al. (2014) suggested that oral communication was the foundation of literacy development, and they found the improvement of phonemic awareness as a valid predictor of successful reading by the end of kindergarten. Marsh, Hannon, Lewis, and Ritchie (2017) and Schryer, Sloat, and Letourneau (2015) agreed that early, active engagement with literacy at home prepared children to learn in school. Gonida and Cortina (2014) and Anderson, Atkinson, Swaggerty, and O'Brien (2019) also agreed that parent involvement in a child's education was associated with a child's educational performance. Pianta et al. (2017) found that parental involvement was an indicator of success in early reading literacy and was directly correlated to academic achievement. They highlighted that children need to practice daily with their parental role models to help heighten beginning reading literacy development. Furthermore, they asserted that a common belief today was that parents are children's first teachers who play an essential role in a child's educational development. New insights entered this arena of learning. Even parental involvement for home learning changed as children moved from prior-to-school settings to school due to parents' communication with the child's educator (Murray, McFarland-Piazza, & Harrison, 2015). Students adapted differently to changes and needed more intervention than ever before because of the optimization of adaptive interventions (Almirall, Kasari, McCaffrey, & Nahum-Shani, 2018). More instructional values needed to take place, and the learning behavior of

students was more disciplined (Graham, 2018). There have been very few studies that explored parental involvement of preschoolers and at home educational programs. The gap in parental research and at home literacy programs research led me to examine what was the relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores.

Purpose of the Study

To compete and succeed globally today, children start early with English alphabet recognition and phonics instruction. Reading literacy is essential in the learning process. The purpose of this ex-post-facto quantitative correlational research study was to determine if there was a relationship between parental recollection of at-home reading literacy activities of prekindergartners (i.e., the independent variable) and beginning kindergarteners' reading literacy scores (i.e., the dependent variable).

Research Question and Hypotheses

The following research question guided this quantitative research study:

What is the relationship between parental recollection of at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy scores?

H_0: There is no significant relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners reading literacy scores.

H_A: There is a significant, positive relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores.

The dependent variable was student archival literacy scores as measured on the I-Ready assessment. The independent variable was the parent recollection survey taken by kindergarten parents.

Theoretical Framework for the Study

Children learn through collaborations with their immediate culture, and parents are as a child's introduction to the learning process (van der Pluijm, van Gelderen, & Kessels, 2019). This study was guided by Vygotsky's (1978) social interactive theory of children learning development and Piaget's (1936) theory of cognitive evolution.

Vygotsky's Theory of Social Interactive Learning Development

Vygotsky (1978) suggested that children learn more with adult assistance and guidance than through experiences that are begun by themselves. Vygotsky also emphasized the importance of children being challenged on teaching activities as well as giving them chances to flourish and excel. Group collaboration is essential in children's learning development, and they learn through interactions with others (Vygotsky, 1978).

Implementation of Vygotsky's (1978) notion of the zone of proximal development (ZPD) depends upon social interaction. Learning in the ZPD develops with adult guidance or communication with a more expert peer and exceeds what a novice achieved alone (Vygotsky, 1978). Teng, Hackett, and Draheim (2017) stated that

Vygotsky focused on interactions amongst people in a socialcultural context on developing their shared social skills.

Vygotsky (1978) indicated that speech and writing were cultural developments that individuals use to interact in social environments. Children develop high-thinking skills of knowledge by focusing on the social interaction of developmental competencies in their zone of proximity (Vygotsky, 1978). The sociocultural cognitive theory of Vygotsky suggested that this intellectual development starts in infancy and develops into social and cultural contributions learned from parents, tutors, and teachers. Like Piaget, Vygotsky believed that youth are motivated by engaging activities that challenged and stretched their current abilities. The social aspect of cognitive development aligned with Vygotsky's ideas, other than the views of Piaget.

Piaget's Cognitive Development

Piaget's (1936) theory of cognitive evolution portrays intellectual development regarding physical phenomenon and logical thinking. Piaget's theory of cognitive development includes four stages across childhood and adolescence: sensorimotor, preoperational, concrete operational, and formal operational. In this quantitative study, I focused on children between the ages of 4 and 6 years old. During this time, children are in the preoperational stage (Piaget, 1936).

As the children's thinking skills grow, their preoperational abilities to notice and consider sensory input developed in the sensorimotor state become more concrete and more adapted to functional needs (Piaget, 1936). At the preoperational stage, students learn to read in different forms, such as sounding out letters and phrases, and they are just

beginning to learn the symbols of language through alphabet sounds and the combination of letters sounds and the phonemic awareness of hearing (DeBaryshe & Gauci, 2017). Manigo and Allison (2017) indicated children begin the reading process at home with sensory-based experiences in word sounds, rhyme, and alliteration, before applying the knowledge gained through these at-home experiences to the more actual development in kindergarten of letter-sound association and alphabet names.

Nature of the Study

In this study, I used an ex-post-facto, quantitative, correlational research design because the data for analysis were collected from the archival state assessment of kindergarteners. From the survey data, a combined score of the 25 questions asked regarding parents' recollection of at-home reading literacy activities of prekindergartners was collected and analyzed. Creswell (2016) indicated that quantitative research was a way of evaluating the relationship between two or more variables using statistical data and procedures to create a possible measurement to test an idea or theory.

I used a regression analysis to measure the relationship between the independent variable and the dependent variable (see Gravetter & Wallnau, 2005). A more detailed discussion of the relationship between variables and rationale for using this statistical technique will follow in Chapter 3.

Definitions

The following terms and definitions were used throughout this study:

Alphabetic principle: The ability to understand and associate sounds with letters in written words (Maleki & Nourdad, 2016).

At-home reading literacy engagement: A collaborative intervention to enable social transformation (Baroody & Diamond, 2016).

Kindergarten students: Young children, aged 5- to 6-years-old attending school (Baroody & Diamond, 2016).

Phonemic awareness: The ability to hear and identify individual sounds, or phonemes, and to blend and segment these sounds in spoken words (Bratsch-Hines, Burchinal, Peisner-Feinberg, & Franco, 2019).

Phonics: The understanding of the relationship between letters, letter patterns, and sounds in written words (Suggate, 2016)

Phonological awareness: The ability to hear and work with larger units of sounds of spoken language, including onsets, rimes, and syllables (Suggate, 2016).

Reading literacy scores: Reading outcomes for students receiving supplemental reading intervention (Baroody & Diamond, 2016).

Assumptions

I assumed that the I-Ready test scores are accurate depictions of children's literacy mastery. This assumption was based on the validation process of the test and school testing procedures. I also assumed that parents' recollection of at-home literacy activities before the students' entrance in kindergarten was complete and accurate as well as that there were similar levels of completeness and accuracy across all parents.

Scope and Delimitations

In this study, I determined the relationship between reading literacy as measured by tests of children's alphabetic mastery and letter-sound recognition at kindergarten

entrance and their parents' recollections of engagement in at-home reading literacy activities in the preschool years. Data used in this study represented the kindergarten population and their parents of Title I schools in one school system in the southeastern United States. The results of the study may not be generalized to other students at different grade levels, to students in non-Title I school, or students in other parts of the state or country. The scope focused on reading literacy guided by parent involvement. The key delimitation of the study is that it concerns only parents, kindergarteners, and kindergarteners' reading scores.

Limitations

It was possible that parents who volunteered and who completed the survey were different from parents who did not in factors, such as understanding of English, scholarly engagement, or free time, and in ways that affected the generalizability of the findings. Another limitation was the cross-sectional nature of the study; a longitudinal effort to record literacy activities over time in the preschool years as they happened was beyond the scope of this dissertation.

Significance

In this study, I focused on determining the relationship between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. A significant positive correlation was found, providing childcare and preschool teachers and parents with information about the importance of at-home literacy activities before entering kindergarten and the effect of the reading literacy while in kindergarten. There was also a real opportunity for school

officials and administrators to continue to reinforce the activities that children have learned before entering kindergarten. This study had the potential to provide insight into the gap in reading practice concerning the children's learning by recognizing and promoting the importance of the relationship of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. The findings of this study can be used to create a significant and positive social change for students, parents, schools, the district, and the community.

Summary

About one third of U.S. children enter kindergarten without knowledge of all English alphabet letters and letter sounds. The purpose of this study was to determine if there is a relationship between parental recollection of the at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy scores. Children's current level of reading literacy, assessed by the study school district at kindergarten entrance, and parents' recollections of at-home reading literacy activities as recorded in a survey provided the data from which the correlation was derived.

In Chapter 2, I will discuss recent research in greater detail and provide more extensive discussion on reading achievement, early intervention, parental involvement, and the research basis for the employed research methodology.

Chapter 2: Literature Review

The problem that prompted this study was that one third of entering kindergarten students do not recognize all letters of the English alphabet or their associated sounds (Heilmann et al., 2018). The purpose of this ex-post-facto, quantitative, correlational research study was to determine if there is a relationship between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. In this chapter, I discuss the importance of prekindergartners' reading readiness and its impact on student achievement in kindergarten reading literacy. In this chapter, I also present information on the literature search strategies, the theoretical foundation of the study, and a literature review of related works to the critical variable in this study. This literature review begins with a description of the literature search strategies, leading to a discussion of the theoretical foundation of the study, the activities of prekindergartners, and the major reading literacy theories related to the development of early reading literacy of children and their connection to the current study. The chapter continues with a review of the literature related to the alphabetic system, phonemic awareness, at-home reading literacy activities of prekindergartners, beginning kindergarteners' reading literacy scores, and the school readiness gap.

Literature Search Strategy

In this literature review, I focus on the reading gap that develops in early elementary school and the instructional development of children's reading literacy,

including the potential effect of early learning at home. The sources cited in this literature review were located using databases accessed through the Walden University's Library, including Education Research Information Center (ERIC), ProQuest, and EBSCO Information Services. I gathered literature from government publications, academic journals, and peer-reviewed articles for this review.

The following keywords were used in the search: *alphabetic principle, at-home reading literacy, kindergarten, phonological awareness, phonemic awareness, phonics, parental involvement, reading literacy, early reading intervention strategies, reading literacy scores,* and *achievement*.

Theoretical Foundation

The theoretical foundation for this study was Vygotsky's (1978) social interactive theory of children's learning development and Piaget's (1936) theory of cognitive evolution. Both theorists focused on child development. Vygotsky's theory focuses primarily on social interaction in the event of thinking. Vygotsky stated, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level" (p. 57). In the following subsections, I provide additional information on how the two theories have been previously applied in research and how they related to this study.

Vygotsky's Social Learning Development Theory

Implementation of Vygotsky's (1978) notion of the ZPD depends upon social interaction. Learning in the ZPD develops with adult guidance or communication with a more expert peer and exceeds what a novice can achieve alone (Vygotsky, 1978). Teng et

al. (2017) stated that Vygotsky focused interactions amongst people in a social-cultural context on developing their shared social skills.

Vygotsky (1978) suggested that a competent teacher or tutor provides an abundance of social interaction for the child to learn. Subsequently, the adult may model behaviors or teach the child how to govern himself around others. Vygotsky referred to this as a cooperative or working together with others. Then, the learner (i.e., the child) absorbs the training from the expert (i.e., the parent, tutor, or teacher) and soon demonstrates the learned matter by portraying those actions (Vygotsky, 1978). Vygotsky believed that cognitive development is endless (James & Prout, 2015).

Vygotsky's Theory Previously Applied in Research

Research supports that reading readiness in prekindergartners' free-time choice activity and teacher-directed activity setting in preschool are indicators of reading readiness (Goble & Pianta, 2017). Further research showed in classroom observation that free-choice caused the student to have average gain, whereas the teacher-driven model showed positive language development and early literacy skills (Goble & Pianta, 2017). Research and practice revealed that children's learning skills in reading achievement and independent roles to reading success need to cultivate higher learning skills in their early years (Rand & Morrow, 2018).

In the theory, Vygotsky (1978) stressed social interaction in the development of cognitive thinking and the strength of the community made the interaction meaningful socially. Hausfather (1996) indicated that Vygotsky's social cognitive development theory focused on teacher interaction with the learning process experience in the

classroom. The cognitive development in the teacher's class supported the theory of a change in the minds of the student through the process of the ZPD with a shared purpose and focus. Culture, communication, and cognition of changes in teacher learning supported Vygotsky's theory of cognitive learning (Hausfather, 1996).

Vygotsky's theory has been shown to affect the reading skills children learned in their elementary school classroom (Cooc & Kim, 2017). In Cooc and Kim's (2017) study, the instructions were modified for the instructional perspectives of social constructivists in learning, and the classroom teacher took a different approach to teach the play Hamlet. Instead of reading the game page by page in a whole group setting, the teacher created active groups to modernize the play by use of puppetry. With the leadership assistance of the teacher, each group read, performed, and taught an act of Hamlet. The students were socially and constructively motivated to learn, and the results placed the students into a more robust and positive category of reading skills. The gain in reading achievement was greater for children with a lower level of learning. According to Cooc and Kim, literacy activities can create an active and balanced learning environment for all students to be successful in the learning process.

Relation of Vygotsky's Theory to the Study

Vygotsky's theory relates to this study by exercising the cognitive development of thinking concerning how the teacher supports students through instruction and learning with the use of visual activities in education. The change or modification of the teaching and learning experiences affects the learning process. Students make a positive social

difference by utilizing the effective social interaction of maturity in the process of learning (Vygotsky,1978).

Piaget's Theory of Cognitive Development

Piaget (1936) suggested that students adapt cognitive development by learning as they grow and mature from the sensorimotor and preoperational stages to more concrete applications in elementary school. In the social theory, Piaget stated that the relationship between cognitive development and social learning became an intellectual development to all levels of education. These ideas were foundational to this study of the relationship between the parental recollections of the at-home reading literacy activities of prekindergarteners and beginning kindergarten students' reading literacy scores. Piaget believed that children maneuvered between a set stage of cognitive development beliefs of the sensorimotor stage to preoperational in the years from prekindergarten to kindergarten (James & Prout, 2015).

The cognitive development of children moves through Piaget's four stages steadily and gradually (Ojose, 2008). The stages are moved through as growth increases and the child matures and gains experience (Ojose, 2008). The first stage, the sensorimotor stage, extends from birth until the concept and appearance of language (Ojose, 2008). The second stage, preoperational, suggests that children have developed an increased language ability with limited logic and understanding (Ojose, 2008). At this stage, a child links unrelated events. For instance, a child added numbers together by using concrete examples and experiences (Ojose, 2008). The third stage, concrete operational, indicates that children develop at an accelerative rate focusing on the

increase of necessary skills using their senses and understanding the concept of second and third dimensions simultaneously (Ojose, 2008). Piaget's theory suggested that children attempt to understand their world by constructing reality rather than just seeking knowledge (Ojose, 2008). The fourth stage, formal operational, is where children formulate a hypothesis and deduce consequences through patterns of reasoning and the social interaction of cognitive development (Ojose, 2018). Piaget's research proved that the way children think was qualitatively different from the thinking patterns of adults (Ojose, 2008).

Previous Applications of Piaget's Theory of Cognitive Development

Researchers have stated that there is a need for additional research on cognitive development concerning the reliability of the mindfulness in adolescents. Bormanaki and Khoshhal (2017) indicated that the role of equilibration focused on the receptive skills of the student. Hvit (2015) used the theory of cognitive development to reveal that tasks in preschool are recognized in practice. Research indicated that more information was needed in understanding toddler literacy, teaching early literacy, and the educators' construction of literacy (Hvit, 2015).

According to Blake and Pope (2008), Piaget's theory of the stages of development encouraged a balance between assimilation and accommodation. In their study, the instructions of activities were introduced to an early learner, with the child repeating the song, poem, exercise, or ritual several times. The teacher assisted the child and continued the operation until the early learner became comfortable with the routine of the task. Eventually, the learner accepted the first stage of learning and moved to the next, of

knowledge, and became a little more independent and used logical thinking to know the next step. The learner matured as their thinking patterns grew (Blake & Pope, 2008). Cognitive skills, such as memory, logical reasoning, and acknowledging experiences, developed as the learner matured from early repetition to problem-solving logic (Blake & Pope, 2008).

Relation of Piaget's Theory to the Study

Piaget's theory related to this study because of the acknowledgment of the early learners' cognitive skills development. Parents are the initial learner's teacher. At home, the child learned simple games and activities by playing and repeating them daily. The learner used these skills and carried them on to kindergarten, where cognitive thinking increased with a visual and logical concept of thought. Piaget's theory challenged the child from the early phase of the sensorimotor stage to the preoperational stage in kindergarten. As the child moved from one step to the next, their maturity grew and the logic of their thinking developed to a more precise application.

Literature Review Related to Key Variables

In this literature review, I cited peer-reviewed articles that were consistent in relating to the scope of the study. The articles reviewed focused on the independent variable and the dependent variable. They were also sources of vital information on the relationship between the parental recollection of at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy scores. Most of the articles reviewed were published in the past 5 years. The rationale for included sources

that were published more than 5 years ago was that they related mostly to the theoretical framework of the study or to the research question to establish a gap.

The Alphabetic System

Jarrett, Hamilton, and Coba-Rodriguez (2015) pointed out that family at-home literacy practices were a strong predictor of reading achievement that focused heavily on phonemic awareness. Children who entered school with considerable knowledge and skill in early literacy had a unique and lifelong benefit over the children who did not (Sylva, 2014). However, some literacy skills provided more advantages than did others. According to Sylva (2014), the effect of the development of early literacy skills among students who had the benefit of receiving that high-quality preschool reading skills tended to become more actively involved in academic learning. Sylvia (2014) further suggested that students had a stronger foundation in self-regulated skills that allowed the individual to possess real executive skills in the service of learning development.

Vaknin-Nusbaum and Nevo (2017) suggested that alphabetic knowledge (letter-name and letter-sound expertise) and phonological awareness were of critical importance for pre-kindergarteners' reading achievement in languages with alphabetic orthographies. Knowing the names of letters played a crucial role in learning letter sounds and decoding words (Erickson & Wharton-McDonald, 2019). Erickson and Wharton-McDonald (2019) indicated that children's letter-name knowledge even helped in understanding that words were not arbitrary strings of letters but followed phonemic patterns.

According to Vaknin-Nusbaum and Nevo (2017), parents applied different practices by interacting with a reading program for their children. The working-class

parents focused more on experiences; whereas, the popular community of parents associated with the literacy reading program learned in school (Vaknin-Nusbaum & Nevo, 2017). Given the central role of alphabetic knowledge and phonemic awareness in early literacy development, it was pivotal that prekindergartners gain an understanding of the interrelationship among letter-name and letter-sound education and phonemic awareness (Gatlin & Wanzek, 2015).

Phonemic awareness was defined as the understanding that words are comprised of discrete sounds (phonemes) and the subsequent ability to identify those sounds in spoken language (Bratsch-Hines et al., 2019). Alphabet recognition (also known as alphabet knowledge) was the ability to recognize letters by their shapes, and linked their names and sounds to those forms, and did this quickly and confidently (Maleki & Nourdad, 2016). Both skills were needed to understand the alphabetic principle, the concept that a series of symbols, known as the alphabet, map onto the sounds of the English language in predictable ways (Maleki & Nourdad, 2016). Gillon and Macfarlane (2017) asserted that phonological awareness in early literacy success contributed to children's academic achievement. Children exhibited challenges in mastering these skills as early as kindergarten (Allington, 2017). Also, Allington (2017) noted that a commitment to success in reading stemmed from an assurance for readers to have access to high-quality instructions to interpretation.

Erickson and Wharton-McDonald (2019) suggested that knowledge of the alphabetic system was the essential element of phonics instruction, including phonemic awareness, identification of letter shapes, and association of letter shapes with their

corresponding English language sounds. Systematic phonics instruction taught the beginning reader how letters correspond to sounds. Therefore, for the teaching to be practical, children first understood the relationship between the sounds of words and the alphabet (Dombrowski & Gischlar, 2014). Additionally, as they progressed, developing readers used several strategies to read words, such as decoding, analogy, prediction, and memorizing sight words, all of which require the mastery of letter-sound correspondences (Erickson & Wharton-McDonald, 2019), and therefore the knowledge of phonemic awareness and alphabet recognition skills.

Phonemic Awareness

Phonological and phonemic awareness skills were essential in determining young children's success in learning to read (Heath et al., 2014). In several studies, students' level of phonological awareness and letter-naming speed in kindergarten were found to be strong predictors of reading achievement in first and second grade (Martinussen, Grimbos, & Ferrari, 2014; Reed, Petscher, & Foorman, 2016). Treiman, Kessler, Pollo, Byrne, and Olson (2016) and Tiernan and Kerins (2014) demonstrated that phonemic awareness instruction provided to children in preschool had a modest but significant positive effect on these children's reading skills in fifth grade.

Christopher et al. (2015) indicated that unskilled readers in fourth grade had entered the first class with limited phonological awareness and that this skill gap contributed to their slowness in learning letter-sound correspondences and decoding unfamiliar words. Researchers agreed that phonemic awareness was a strong predictor of reading achievement (Berendes & Weinert, 2016; Christopher et al., 2015; Kim, 2015;

Lovett, Barron, & Frijters, 2014). Kim (2015) acknowledged that phonemic awareness on entering school might be a powerful determinant of learning to read text based on an alphabetic script.

Phonemic awareness was often confused with phonological awareness. Kruse, Spencer, Olszewski, and Goldstein (2015) stated that phonological awareness was the ability to distinguish elements of spoken language, including words, syllables, onsets, and rimes. However, phonemic awareness dealt with individual language sounds. Phonological awareness included phonemic awareness but also encompassed the recognition of broader word units. Because both types of identification included the ability to distinguish the individual sounds within words at the phonemic level, both were relevant to the present study. Reading development came from combining different and blended letter sounds to form words that conveyed an idea (Kim, 2015; Washburn & Mulcahy, 2014).

Penney, Drover, and Dyck (2015) discovered that letter knowledge promoted phonological awareness and the discovery of the alphabetic principle. They noted that their research coincided with previous findings that memorization of consonant phonemes and matching of phonemes to alphabet letters helped students in learning to read. Skwarchuk, Sowinski, and LeFevre (2014) suggested that at-home practice in letter naming and phonemic awareness boosted early learning in reading literacy. Goldberg and Lederberg (2015) advised that simple letter naming activities helped children master letter sounds.

Lovett et al. (2014) indicated that kindergarten students became classified as at-risk and struggling students because of their lack of knowledge of letter names. Daly et al. (2015) reported that 66% of entering kindergartners in their study were already aware of alphabetic letter names and that 33% recognized consonant sounds but that the remaining students could not identify the letter names or letter sounds and thus were labeled as struggling readers. Suggate (2016) added that reading intervention showed proper maintenance as compared to short-term strategies. Kunzman and Gaither (2013) reported that students who had beginning reading skills difficulties needed to participate in extra literacy activities to achieve success and to avoid continued school disappointment in improving a student's reading skills.

Activities of Prekindergartners

Parents had a significant influence on children's reading literacy achievement. As an example, Andersen and Nielsen (2016) found that when parents frequently read to a child, the child's reading skills improve. Manigo and Allison (2017) suggested that a parent-teacher partnership provided a positive educational dimension of learning. Bzostek and Berger (2017) acknowledged that the formative family experiences at-home developed during a child's early learning period.

Bierman, Welsh, Heinrichs, Nix, and Mathis (2015) indicated programs that helped parents improve their children's reading skills. Froiland, Peterson, and Davison (2013) found that parents' at-home teaching was crucial in promoting their child's cognitive development. However, they also found that some parents believed that the

learning of their child should be left to teaching experts because parents lacked an understanding of the material to be taught.

Froiland et al. (2013) indicated that numerous studies reported positive educational outcomes with parent home-based involvement and parental expectation. Goodall and Montgomery (2014) stated that parents were a benefit when they became actively engaged in their children's at-home literacy activities. Ma, Shen, Krenn, Hu, and Yuan (2016) indicated that the learning outcomes of the children's at-home literacy experiences were promoted from real participation instilled from their parents' involvement in the engagement of their children's schooling. Educators and parents recognized that learning to read began long before a child entered school. Lee, Reinicke, Sarkar, and Anderson (2015) indicated that parents and teachers worked cooperatively in matters that motivated students learning development. Similarly, Staempfli, Tov, Kunz, Tschopp, and Eugster Stamm (2016) acknowledged that parents and teachers did not necessarily have to work together every day but needed to work cooperatively in their efforts of supporting students' literacy goals.

Yeo, Ong, and Ng (2014) reported that at-home reading activities enhanced early reading literacy experiences while attending school. Yeo et al. (2014) noted that active parental involvement in early childhood reading literacy at-home had a unique and positive effect on academic skills learned by the students. Since parents were children's first teachers, the students' home environment was their primary classroom.

Saçkes, Işıtan, Avci, and Justice (2016) incorporated home literacy practices as a motivational tool to help students become more successful in reading. The students and

parents in their early literacy practice intervention program engaged in storybook interpretation to increase motivation for reading literacy, according to Saçkes et al. Similarly, Hamilton, Hayiou-Thomas, Hulme, and Snowling (2016) used storybooks read at home to increase children's use of oral language, their phoneme awareness, and their new decoding skills. According to these authors, the home environment should be equipped with books, including soft material books, pop-up paperback books, animal sound books, touch and feel books, and even musical sound books. The intervention described by Hamilton et al. resulted in significant reading literacy progress for 4 and 5 year-old children, producing, finally, 6 year-old readers with above-grade-level reading skills.

Van Bergen, Bishop, van Zuijen, and de Jong (2015) found that parental reading aloud at-home to young children increased children's reading awareness and cognitive skills related to reading literacy. Also, Cabell, Zucker, DeCoster, Melo, Forston, and Hamre (2019) indicated that stories read frequently, and repetitively increased student vocabulary growth and phoneme awareness. Prekindergarten children's at-home engagement with parents around oral and literary activities and shared book learning tended to improve necessary reading skills such as phoneme awareness and letter knowledge demonstrated by these children in kindergarten.

Repeating nursery rhymes, chanting songs that inspire singing the sounds and phrases of the letters, clapping your hands to the beat of the tunes, or describing animals, numbers, shapes, and colors helped to encourage children to utter the sounds to form words and phrases. Those children who failed to imitate the activities of repeating the

sounds and phrases tend to lose interest in reading. Those words and phrases helped children read. Some children failed to be introduced to this practice and were not successful in recognized simple reading activities. Inoue, Georgiou, Parrila, and Kirby (2018) found similar school outcomes for prekindergarten at-home literacy activities.

Beginning Kindergarteners' Reading Literacy

Children learned to read more successfully in the academic setting if there had been a strong foundation at home in preinstructional reading literacy (Maleki & Nourdad, 2016). Carlson and Berger (2013) found that parental involvement during prekindergarten promoted children's school readiness and was associated with higher academic achievement and fewer behavioral problems in adolescence. Moreover, the earlier a parent began reading to his or her child; the more successful the child was in achieving the target reading level at the end of kindergarten (Andersen & Nielsen, 2016).

Stanley, Petscher, and Catts (2018) suggested that reading literacy skills learned in preschool correlates with the beginning reading comprehension of children in early elementary school. Children were asked to listen to orally presented age-appropriate narratives and then be tested on their understanding by answering questions on their reading skills of learned information (Stanley et al., 2018). Ouellette and Sénéchal (2017) reported that children read after taking the Elision reading subset tests and noted that the children developed early literacy skills. Ozernov-Palchik et al. (2017) suggested a prereading skills test for kindergarteners to calculate the phonemic awareness composite scores for the Word ID subtest assessment of single-word reading skills to help young

readers. Stanley et al. acknowledged that children lacking prerequisite reading skills before entering formal schooling tended to have low achievement skills.

School Readiness Gap

The problem that prompted this study was that there was a void from preschool learning to kindergarten reading concepts of literacy in approximately one third of entering kindergarten students. The achievement gap in school readiness appeared in the low-achieving students who were struggling to meet the advanced requirement of reading (D'Agostino & Rodgers, 2017). Part of the problem stemmed from the educational and training system that did not push students harder to use a more advanced reading level (Darling-Hammond, 2015). Students learned the necessary skills of reading but did not apply the skills learned to the abilities to read (Shanahan, Fisher, & Frey, 2016). Preschoolers who were low-achieving needed help in understanding the text and were having trouble with language skills (Boardman, Vaughn, & Klingner, 2018; Trapman, van Gelderen, van Schooten, & Hulstijn, 2018). Reardon and Portilla (2016) acknowledged that academic achievement gaps at the kindergarten entry were found predominately among students born during the years of the late 1900s. These students declined in academic achievement, self-control, externalizing behavior, a measure of student's approaches to learning (Reardon & Portilla, 2016). These school readiness gaps were of nationally representative samples of approximately 20,000 kindergarten students of ages 5-6 (Reardon & Portilla). Hartman, Winsler, and Manfra (2017) reported that early behavior skills of school readiness were vital for school academic success. The initial contribution of family and its demographics were associated with children reading

scores (Hartman et al., 2017). Keys et al. (2013) examined whether kindergarteners were ready for school after attending a preschool center. The data resulted in a small but significant association with academics but a small number of social skills in behavior (Keys et al., 2013).

Bierman, Welsh, Heinrichs, and Nix (2018) indicated that the clinical trials on readiness for school entry for some kindergarteners were based on preschool home visiting programs as a strategy to help close the gap on school readiness. In addition to academic preparation, behavior (self-regulation) was essential to school readiness of kindergarteners. Duncan, Schmitt, Burke, and McClelland, (2018) suggested that a kindergarten readiness summer program with a self-regulation intervention improved and closed the gap on school readiness. New academic programs that provided skills were reliable indicators of later academic success (Duncan et al., 2018). Therefore, prekindergartner assistance from at-home reading literacy activities introduced by parents provided a reliable indicator of the academic achievement of entering kindergarteners.

There was a gap in kindergarteners' school readiness and kindergarteners' reading literacy. Romstad and Xiong (2017) conducted a study for the Hmong American students who were forecasters of student achievement faced with an informal learning environment. The students were assessed using the Kaufman Assessment Battery for Children, Second Edition, and the Wechsler Intelligence Scale for Children, Fifth Edition. The children scored one standard deviation below the national score.

When compared with the local prekindergartner Caucasian students who tested with them, the Hmong American students scored low. Romstad and Xiong (2017) found

that the variables prekindergartner an informal learning environment was significantly correlated with student achievement. This study was needed because there was a gap in kindergarten/school readiness and reading literacy. Prekindergarten reading literacy activities were necessary and essential for a positive influence on later reading literacy in the educational process in the school district.

Summary and Conclusion

The literature presented in Chapter 2 showed the importance of providing an early reading advantage for students. Entering kindergarten, children would build on reading literacy activities learned at-home. The at-home reading activities, such as repeating letter sounds and reading literacy activities, ensured a positive outcome in future reading literacy. The investigation of this relationship showed that students were successful if there had been any early reading preparation for the student. The reading skills learned at-home developed before the kindergarten early learning abilities began. Both powers of phonemic awareness and alphabet recognition were needed to promote reading literacy skills. Numerous evidence existed related to the reading literacy development to prepare prekindergartner with phonemic awareness, alphabetic acceptance, and the essential reading skills readiness for kindergarten.

In conclusion, parents provided at-home reading materials that helped students improve reading literacy that developed later reading skills. Parents' support for reading achievement became apparent in the academic performance of the child. Pavalache-Ilie and Ţîrdia (2015) and Wong (2015) concurred that parental prekindergarten literacy experiences influenced children's school success and that the institute of learning should

acknowledge the importance of different parent engagement of literacy activities that enhanced goals of student achievement. This study added to other research studies that investigated kindergarten achievement and its relationship to pre-kindergarten events.

A more detailed discussion will follow in Chapter 3. In Chapter 3, a detailed description of the research design and rationale, and the methodology of the study will be presented. Furthermore, threats to validity and ethical procedures will be discussed.

Chapter 3: Research Method

The purpose of this ex-post-facto, quantitative, correlational research study was to determine if there was a relationship between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. In this chapter, I present the research design and the rationale used in this study; the methodological information about the population; the sampling and sampling procedures; and the procedures for recruitment, participation, and data collection. This chapter also contains the archival data that was projected to be used, the instrumentation and operationalization of constructs, and the data analysis plan. I discuss the threats to validity and the ethical protections undertaken for participants as well.

Research Design and Rationale

For this research study, I employed an ex-post-facto, quantitative, correlational design, using the archival assessment data of I-Ready test scores from the study site district and a survey of parents (see Appendices A and B). I chose to conduct this study using this design to see if there was a relationship between a kindergartener's reading level and the amount of reading literacy that the prekindergartner received before entering school. The independent variable was parental recollection of the at-home reading literacy activities of prekindergartners (i.e., survey data). The dependent variable was the beginning kindergarteners' reading literacy scores (i.e., archival data from the district school). The data were used to determine the relationship between parental recollection of the at-home reading literacy activities of prekindergartners' combined survey scores and the beginning kindergarteners' reading literacy scores (see Figure 1).

Methodology

In this section, I present information about the population, sampling procedure, and the procedures for the recruitment of the participants; a description of the participants; and a discussion of how the data were collected and drawn. In the Instrumentation and Operationalization of the Construct subsection, the reliability and validity values in the study are explained. Finally, I present the data analysis plan and identify the software used for analysis.

Population

The targeted populations were kindergarten students and their parent or guardian. I selected the kindergarten grade level due to the nature and purpose of the study. The students and teachers at the study site were divided into five different classrooms. Each kindergarten classroom had one teacher. There were approximately 25 students in each category. These students ranged in age from 5 to 6 years old.

The parent or guardian of the child represented the adult part of the children-parent dyads. The parent was a biological or guardian-based individual connected to the student. I asked the parent or guardian to take a survey, which encouraged them to recall the various types of activities that the parent and child experienced before entering kindergarten. The targeted population size was approximately 125 children-parent dyads.

Sampling and Sampling Procedure

I conducted this quantitative study in a public elementary school in a major Southern city in the United States. The site was chosen based on convenience; I was an educator at the study site at the time of this study. This school had an approximate

population of 560 students in 35 classrooms, ranging from prekindergarten to fifth grade. There were approximately 125 students in the kindergarten class in any given school year. The school had been designated as a Title I school, which made it eligible for supplemental funding to provide needed items, such as books, paper, pencils, etc., and free or reduced-price lunch for low-income and at-risk students (Bojczyk, Haverback, Pae, Hairston, & Haring, 2019). Over 40% of the student body from Title I schools are considered low-income students, which suggested that about 40 of the 100 kindergarten children enrolled each year were from low-income backgrounds (see Bojczyk et al., 2019). In deciding which strategy worked best, I rationalized that stratified sampling was most appropriate because of the usage of historical (i.e., archival) data. Stratified sampling is used when the population comprises different groups to ensure that each group is fairly represented in the sample (see Creswell, 2016).

According to Marino (2018), power is the probability that the researcher makes the correct decision to reject the null hypothesis when it was false. Cohen (1988) suggested that studies be designed to have an absolute minimum of 80% probability of detecting an effect, or power = .80. I used theG*Power software to determine the required sample size (see Faul, Erdfelder, Buchner, & Lang, 2009). The power analysis for a linear regression model with the input parameter set to power = .80, $\alpha = .05$, and assumed effect size $f = .15$ resulted in a total sample size of 55 participating parent and child dyads.

Procedures for Recruitment, Participation, and Data Collection

I used a purposeful, census sampling (see Creswell, 2016) because records of all kindergarten students and parents of all kindergarten students were included as possible participants in this study. The study participants were children-parent dyads. If the children had siblings qualified as part of the study, then the parent had the option of working with as many children as needed. The final number of participants was determined by the number of parents who completed the parent recollection survey. I identified the parent (P) parent and student (S) by matching numbers in the archival data study (e.g., P001 matched to S001 because the recollection survey issued was 001.)

I made every effort to encourage parents to participate in this study. All parents of the 125 students were invited to join in the study, with one survey (i.e., one parent) being used per student. I held a parent information meeting with all kindergarten parents explaining how to use the Parent Recollection Survey. I adapted a survey developed by van Bysterveldt (see Staempfli et al., 2016). Permission to modify the survey was given to me by the developers (Appendices C, D, and E).

I offered a second session for parents who could not attend the first information meeting. If, at that time, a parent had not been able to participate in one of the sessions but wished to consider joining in the study, I would have scheduled a one-on-one meeting with them to explain the Parent Recollection Survey. At these information meetings, parents were encouraged to ask questions for greater understanding of the survey. The survey form was also translated into Spanish for parents who were not fluent in the English language. A certificate of participation was offered for the completion of the

survey. At these meetings with parents, I asked those who elected to participate to sign a consent form.

Archival Data

I gathered archival kindergarten I-Ready scores to establish the level of mastery of beginning kindergarteners' reading literacy. Before accessing students' scores for the study, I received signed letters of agreement from the school's principal and the district administrator. Approval from Walden University Institutional Review Board (11-14-19-0086802), was also granted to me before any correspondence was sent to the district. I had to complete a school district application of permission to retrieve the I-Ready data as well as provide the monetary amount needed by the area to get access to the data. The wait time for the retrieval of archival data was 5 weeks. Concerning archival (i.e., historical) data for this study, the best source of the data was from the district because there was a true reputability of the data source of information.

Instrumentation and Operationalization of Constructs

I asked all the parents of the kindergarten students to complete a Parent Recollection Survey (see van Bysterveldt, Foster-Cohen, & Gillon, 2013). In this survey, the original authors developed questions about the recollection of the books that the student had read with a parent or guardian, the echoing of words and phrases that a parent or guardian read, or the showing of pictures of different sounds and groups of phases as well as letter names and letter sound.

The Tennessee Comprehensive Assessment Program (TCAP) test measured the reading and mathematical knowledge that a student had captured over the school year.

The TCAP test focused on multiple types of examinations, such as multiple choice and short answers, to test the knowledge of the student. Tests, such as Cronbach's alpha, were used to measure the internal reliability for the test with many possible solutions and as an index of test score reliability (Morera & Stokes, 2016).

The Parent Recollection Survey Scores

The original instrument consisted of almost 200 questions, with section enhancement of the type of problem asked, a subsection of high order questions, and a psychological indication of the classification of items that confirmed the validity of the said instrument. Variables were tested to show its reliability (Eriksen, Færden, Lockertsen, Bjørkly, & Roaldset, 2018). Van Bysterveldt et al. (2013) indicated that the values for validity and reliability were derived from the original questionnaire, which was divided into sections that contained questions about different areas of early literacy and different points of the child's literacy skills of development.

The following items are some example values from the original questionnaire from the manual of van Bysterveldt et al. (2013). The value of each question was worth only one point each. The topic was reading books:

1. How often do you read to your child? (Please circle one): Never/rarely, occasionally, weekly, several times per week, daily, or several times per day
2. At what age did you begin reading to/with your child?
3. How many books does your child own (approximately)? (Please circle one): 0–10, 10–25, 25–50, 50–75, 75–100, or over 100

4. How many books do you own (approximately)? (Please circle one): 0–10, 10–25, 25–50, 50–75, 75–100, or over 100.

In the Parent Recollection Survey, the value of each question ranged from 1 point to 4 points. The more often that the activity was performed, the more valuable the question was. For instance, if the parent read to the child *frequently* (nightly) or six or more times a week, the value of the item was 4. If the parent *never* read to the child at night, then that question was only worth 1 point. The value for 2 points was *occasional*, and the amount for 3 points was equal to *sometimes*.

The scale-levels used in the van Bysterveldt Developing Literacy Questionnaire were (a) reading books, Items 1–13; (b) language awareness, Items 14–16; and (c) response to print, Items 17–20. The reliability value is a character found in a statistical measurement that produces similar results under consistent conditions (see Creswell, 2016). Test scores, which were considered highly reliable, produced scores that were accurate, reproducible, and consistent from one testing occasion to another (see Creswell, 2016).

I requested and received permission to modify and use parts of the original questionnaire for this research study. After the surveys from the parents were returned, Likert scale scores were entered on a 30-column spreadsheet. The 25 Likert scale questions of the revised survey had a 4-point scale. The first and second columns indicated the identification number of the parents and students that matched the student data to the parent survey. Next, the student's I-Ready reading score was entered in the third column of the spreadsheet. The fourth column of the worksheet had the total of 25

questions. The next 25 columns corresponded to the 25 survey items. The information from the spreadsheet was then placed on a table indicating the independent variable (i.e., the Parent Recollection Survey scores) and the results for the dependent variable (i.e., the I-Ready scores).

Survey Questions 1 through 10 consisted of reading stories that the children remembered the activities learned. The value of each item ranged from 1 to 4 points, and the score ranged from 10 to 40.

Survey Questions 11 through 25 included letter sounds and phonemic awareness. The value of each item ranged from 1 point to 4 points. The score ranged from 15 to 60 for recall activities of parents about letter sounds and phonemic awareness. When both sections of the survey were totaled, the rating would be as low as 25 and as high as 100 points.

The scores were calculated by adding the total of the 25 questions. The combined score was as high as 100, and the lowest score was as little as 25. For example, if a survey combined score was a 67, then the score represented that the parent read to the child on a sometimes basis. This survey had been divided into four choices/answers:

1- The point was equal (1-25) NEVER happened at home,
2- Points were equal (26-50) OCCASIONALLY occurred at home (1 to 2 times a week)
3- Points were equal (51-74) SOMETIMES occurred at home (3 to 5 times a week)
4- Points were equal (75-100) FREQUENTLY at home (6 or more times a week)

I-Ready Assessment and Scores

I-Ready was a computer adaptive continuous progress monitoring assessment of critical reading skills. In addition to overall reading ability, I-Ready measured abilities in the crucial areas of reading of phonemic awareness, alphabetic knowledge, fluency with text, vocabulary, and comprehension, as outlined by the National Institute of Child Health Development (National Reading Panel, 2000). As an Internet-based instrument, I-Ready was administered individually or as a group (National Reading Panel, 2000). As an engaging computer animated program, I-Ready eliminated human error and subjectivity.

I-Ready was in alignment with other criterion reference tests. The kindergarten reading tests were determined to be a quality criterion for measuring students' achievement in this study (National Reading Panel, 2000). Relevant validity coefficients showed that this measurement of student achievement informed the public of what students knew and could do. I-Ready (Luo, Lee, & Molina, 2017) was an automated curriculum-based standardized test that measured basic student knowledge and skills, including reading and early literacy. This test was administered to all beginning kindergarten students at the school that was the target of this study. Archived I-Ready reading test scores of each kindergarten student were used to indicate children's entering level of reading literacy awareness.

Data Analysis Plan

The Statistical Package for Social Science (SPSS) was used to perform quantitative statistical analysis. The SPSS contained data values that were stored in a file

and used when it interfaced with other information. I used the SPSS to analyze the data after the I- Ready archival data had been collected from the district. Repeated cycles of screening, diagnosing, and editing helped alleviate data error.

A robust statistical method to show a relationship between two or variables of interest was regression analysis. I chose to use a regression analysis as the approach to measure the relationship between the two variables and to test the hypothesis. This process was used to calculate the regression coefficient, which determined if it was significantly different than zero. It was found to be significantly different than zero, and then the null hypothesis was rejected.

The cleaning and data screening was a process of cleaning the data and transforming the data into text and eventually creating a checklist for evaluation. As for the screening process, I entered the data from the surveys collected and placed the information on the prepared spreadsheet. I performed data cleaning and screening procedures. For instance, if a survey question was left unanswered on several surveys; then, I eliminated that question from the survey. However, if it was one or two questions from the continuously unsettled survey; then, only one or two items were dropped from the survey. However, if the outliers or missing values appeared when conducting a data audit, then the error was removed. The remaining data were plotted. This approach helped assess the quality of the data.

The research question for this quantitative study was to investigate if there was a relationship between parental recollection of at-home reading literacy activities of pre-kindergarteners and beginning kindergarteners' reading literacy scores. The hypothesis of

this study was to determine if there was a significant relationship between the two variables.

For the analysis, the collected data of the combined score of the independent variable (i.e., the Parent Recollection Survey of the pre-kindergarteners activities scores) and the rating of the (i.e., the beginning kindergarteners' reading literacy) was inputted in SPSS. A linear regression analysis shows a mathematical measure of the average relationship between the parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. Furthermore, I used the linear regression because of the predictive value to show not only a relationship but the effect the (i.e., parental recollection of at-home reading literacy activities of prekindergartners) has on the (i.e., beginning kindergarteners' reading literacy scores).

The data was collected and examined from the following instrument: I-Ready records and the Parent Recollection Survey. In the first column (Parent assigned a number), in the second column (student designated the same number), in the third column (i.e., -I-Ready reading score), in the fourth column (i.e., composite score of columns 5-29), and Columns 5 through 29 (the 25 individual survey scores). The composite score of each survey was entered into the spreadsheet. Each value of the 25 items was from 1 to 4 and could have a possible composite score ranging from 25 to 100. The quantitative data was collected and analyzed, giving numerical results of the data in the study (see Figure 1).

Parent # ID	Student # ID	I-Ready Score	Total # of Points	Q1	Q2	Q3	Q8	Q9	Q10	Q11	Q12	Q19	Q22	Q23
P001	S001	334	67	2	2	2	2	2	1	3	2	2	4	4
P002	S002	289	55	2	2	2	1	2	3	1	2	2	1	2
P003	S003	374	74	2	2	2	2	2	2	3	3	4	4	4
P004	S004	380	74	2	2	2	2	2	2	3	3	4	4	4

Figure 1. An example of Parent Recollection Survey Answer Worksheet of the survey combined score and I-Ready reading score.

Also, correlations were calculated between each home literacy element on the survey and students' I-Ready scores. Survey Question topics were grouped into themes, as follows: reading together (Survey Items 1-2); games and songs (3-8, 20, 25); writing (9-10); child identification (11-14, 19, 21, 24); and child description (15-18, 22-23). In this way, the relationship between each home literacy element and children's I-Ready was determined.

To analyze the data and to test the null hypotheses, a regression analysis correlation was used. The I-Ready literacy scores were the criterion. This statistic was used to measure the correlation coefficient between parental recollection of at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores (Gravetter & Wallnau, 2005). The independent variable (i.e., parental recollection of at-home reading literacy activities of prekindergartners) and the dependent variable (i.e., beginning kindergarteners' reading literacy scores) was analyzed. In this analysis, I calculated the correlation coefficient (beta) and determined if it was

significantly different from zero. If it was substantially different from zero, the null hypothesis was rejected.

Threats to Validity

Validity referred to the credibility of the research study (Heale & Twycross, 2015). The aspect of internal validity ensured that the instruments measure the accuracy of the study's outcome (Bolarinwa, 2015). The kindergarten test measured how much growth the student had developed since the entrance of entering school. Threats to validity were external, internal, or statistical.

Threats to External Validity

The risks to external validity addressed testing reactivity, the specificity of variables, and how each threat impacted the situation (Eriksen et al., 2018). To minimize or eliminate the external risks to the study, I had to control the situation surrounding the survey. Since the external validity generalized the case, I gained control over the situation by validating the position as a real-world problem. The performance reviews impacted the job because of the need to keep up with any updates, modifications, and replication of the process of external validity (Siegmund, Siegmund, & Apel, 2015).

Threats to Internal Validity

To minimize the inherent risk to the study, I had to limit the generalizations in the investigation. The information addressed specific data. The dangers to internal validity discussed — a) history, b) maturation, c) testing, d) instrumentation, and e) statistical regression (Eriksen et al., 2018). In this study, the archival data was the dependent variable, and the total score captured from the survey was the independent variable.

Threats to Statistical Conclusion of Validity

The archival data were analyzed using the SPSS to obtain a statistical conclusion of validity. Scheider, Ostermann, and Adams (2017) suggested that one must acquire a solid foundation in data analysis and synthesis. One should understand the theoretical importance of analyzing the collected data and interpreting the array data for a possible statistical conclusion (Scheider et.al, 2017).

Kosinski, Matz, Gosling, Popov, and Stillwell (2015) indicated that participants were more prone to actively participate in the study when there was little or no stress. Kosinski et al. suggested that friendly formats save time and effort on both participants and the researcher. Everyday activities added to the survey helping avoid potential issues that may arise to control external validity.

Ethical Procedures

I followed the protocol set by Walden University IRB before conducting research. The IRB was a necessary component of analysis that ensured that proper ethical standards and federal regulations were followed during the study.

Before any research data was conducted, approval was obtained from the doctoral study committee, Walden University IRB, the city school district and administration, and from the local school principal. After permission had been received from the authorities above, then parents were asked to agree to participate in the study before conducting any raw data collection. Following proper protocol, a consent form was issued to parent participants explaining the details and confidentiality rights of the study. All documents containing confidential data was housed in a locked private office at my home. The

confidentiality of all participants was protected by using numerical representation as opposed to names when reporting the data. No effect was likely to occur regarding past/current roles and relationships of the researcher toward or with the participants.

During the study, information and data collected was kept confidential and viewed only by myself. I also followed the IRB guidelines so that data were not altered or misconstrued. It was also my responsibility to keep the data and information on file for a reasonable period of 5 years in the locked office of my home. After 5 years, the materials were discarded securely.

Summary

In Chapter 3, I focused on the methodology for this study. The study had an ex-post-facto quantitative design with 67 parent and student dyads. I used this design to analyze the relationship between the independent variable (i.e., parental recollection of at-home reading literacy activities of pre-kindergarteners and dependent variable (i.e., beginning kindergarteners' reading literacy scores using linear regression analysis.

A more detailed discussion will follow in Chapter 4. In Chapter 4, the results and findings of the collected data will be presented. The use of the SPSS for the testing was provided. The research question will be analyzed and then discussed.

Chapter 4: Results

The purpose of this ex-post-facto, quantitative, correlational research study was to determine if there was a relationship between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. I developed the research question for this quantitative study to investigate this relationship, and the hypotheses focused on determining whether there was a significant relationship between the two variables.

In this chapter, I present the research data and the results of this study. I also discuss the time frame for data collection, the actual recruitment of participants, and response rates. The changes made from the plan presented in Chapter 3 as well as the baseline descriptive and demographics of the sample are provided.

Data Collection

I made every effort to encourage parents from the study site to participate in this study. In this study, all parents of the 92 students were invited to join in the study, with one survey (i.e., one parent) per student. A parent information meeting with 42 kindergarten parents in attendance was held to explain how to use the Parent Recollection Survey. I offered a second session for parents who did not attend the first information meeting, and approximately 22 parents attended. At these information meetings, parents were encouraged to ask questions for more understanding of the survey. At the meetings, consent forms and surveys were given to participants in both Spanish and English versions.

The research site was divided into four different classes of 22–23 students instead of the five classes of 25 students presented in Chapter 3. This information was provided by the district when receiving the archival data from the kindergarten classes. It took 5 weeks from receiving IRB approval to receive the I-Ready archival assessment data from the school district. The power analysis for a linear regression model with the input parameter set to power = .80, $\alpha = .05$, and assumed effect size $f = .15$ resulted in a total sample size of 55 participating parent and child dyads. I collected 67 parent surveys over the course of 4 weeks. Parents had various opportunities to return the completed survey; they were able to place it in the lockbox leaving the meeting or return it in a self-addressed envelope.

Data Analysis

On the Parent Recollection Survey, I asked the participants demographic questions regarding their gender and if they had multiple children in the grade level. A great majority of surveys returned were from female participants. Only 3% of the surveys were returned by male respondents (see Table 1).

Table 1

Gender of Survey Respondents

	Frequency	%
Male	2	3.0
Female	65	97.0
Total	67	100.0

Four percent of the parents had to complete two surveys because they had more than one child in kindergarten (see Table 2).

Table 2

Number of Surveys Parents Completed

	Frequency	%
1 Child	64	96
2 Children	3	4
Total	67	100

Results

Archival I-Ready Data Results

The results showed that the students' I-Ready scores were identified in three different testing levels: emerging kindergartner, early kindergartner, or midyear kindergartner. The data showed that 78% of the students' archival literacy scores were classified as an emerging kindergartener. Sixteen percent of the kindergartners' student archival scores were classified as an early kindergartner, and 6% of the students' archival scores were classified as the midyear kindergarten level (see Table 3).

Table 3

Archival I-Ready Literacy Data

	Frequency	%
Emerging kindergarten	52	78
Early kindergarten	11	16
Midyear kindergarten	4	6
Total	67	100

Parent Recollection Survey Results

There were 67 surveys fully completed by 64 parents due to three parents having to fill out two surveys for multiple students in kindergarten. The results indicated that nine parents' cumulative survey points tabulated in the never category of the Parental Recollection Survey. These students did not have any exposure to literacy activities

before entering kindergarten. Their scores calculated at 25 cumulative points, only receiving 1 point for each question asked on the survey.

Most of the responses received from parents were in the occasional category, averaging cumulative points of 26–49 points. These 34 students occasionally partook in at-home literacy activities before entering kindergarten. The scores were highest for questions about reading a fairy tale or book at home, singing the ABC song with your child, and playing games and activities with using their hands and fingers.

The next highest category, sometimes, had 20 total surveys from parents score there. This category meant that the 20 parents surveyed scored between 50–74 points. These parents had conducted at-home literacy activities with their kids to help build their alphabet, phonic, and phonological awareness.

There were only four students whose parents frequently engaged them in literacy activities to help develop their literacy. The higher the composite, the more often the parents interacted with the child's reading literacy before entering kindergarten. Since the data were ratio scaled, the composite numbers from the parent survey indicated the relative positions of scores (see Table 4).

Table 4

Cumulative Parent Recollection Survey Responses

	Total responses	%
Never (0–25)	9	13.4
Occasionally (26–50)	34	50.7
Sometimes (51–74)	20	29.9
Frequently (75–100)	4	6.0
Total	67	100

The purpose of this study was to examine the relationship between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. Using a statistically significant linear regression model, Parent Recollection Survey scores predicted I-Ready archival scores of $\beta = .473$, $t(65) = 28.57$, $p < .001$. Parental recollection of the at-home reading literacy activities explained a significant proportion of variance in beginning kindergarteners' reading literacy scores, $R^2 = .224$, $F(1,65) = 18.762$, $p < .005$.

Summary

In Chapter 4, I focused on the data collection and results for this study. The results of the analysis indicated that there is a statistically significant relationship between Parent Recollection Survey scores and I-Ready archival scores; therefore, the null hypothesis was rejected. This finding is consistent with the research of Vaknin-Nusbaum and Nevo (2017) who reported that alphabetic knowledge (i.e., letter-name and letter-sound expertise) and phonological awareness were of critical importance for prekindergartners' reading achievement in languages with alphabetic orthographies. Knowing the names of letters played a crucial role in learning letter sounds and decoding words (Erickson & Wharton-McDonald, 2019). The data in the present study demonstrated that there was a significant positive correlation between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. Parental recollection scores were a significant predictor for beginning kindergarteners' I-Ready archival scores.

In Chapter 5, I will present my conclusions; address the findings of the study; and discuss the limitations of the study, implications of the findings, and my recommendations for future research.

Chapter 5: Discussions, Conclusions, and Recommendations

The purpose of this ex-post-facto, quantitative, correlational research study was to determine if there was a relationship between parental recollection of the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores. The independent variable was the parental recollection of the at-home reading literacy activities of prekindergartners, and the dependent variable was the beginning kindergarteners' I-Ready archival reading literacy scores.

The primary findings of the study indicated that at-home literacy activities are positively related to beginning kindergarteners' literacy. The results of a linear regression suggested that at-home literacy activities performed by parents increase beginning kindergartners' literacy scores. The Parent Recollection Survey responses revealed that 78% of the students received little to no at-home literacy instruction from their parent. The archival data revealed that many students scored below the entry-level for a kindergartener and that there was a need for at-home activities to help with literacy. Eighty-four percent of these students were not prepared for kindergarten in terms of literacy.

Interpretation of the Findings

Both the archival reading data and the parent at-home recollection surveys show the need for an introduction to literacy prior to entering kindergarten. The 78% of students scoring at an emerging kindergarten level and 64% of parent surveys tabulating in the never or occasionally categories support this need of partaking in an at-home literacy program. At-home literacy activities can help promote a child's reading ability,

comprehension, and language skills. The correlation of the variables showed that there was a significant positive relationship of medium strength between the Parent Recollection Survey scores and I-Ready scores. The linear regression and Pearson correlation tests showed that the null hypothesis (stating that there is no correlation) can be rejected.

Moreover, having parents incorporate at-home literacy activities prior to entry into kindergarten can help improve a child's interest in reading and attitude toward reading. Reading literacy is essential in the learning process. Saracho (2017) stated early literacy is significant in a child's developmental process. If the parents practice reading literacy activities with their children before entering kindergarten, then there was a chance that children did better in the learning process (Saracho). The problem prompting this study was that one third of entering kindergarten students do not recognize all letters of the English alphabet or their associated sounds (Heilmann et al., 2018). Therefore, there is a need for school officials and administrators to continue to reinforce the activities that children have learned before entering kindergarten. Educators and parents must equip children with the tools necessary to be literate and successful in the future.

Research and practice revealed that children's learning skills in reading achievement and independent roles to reading success need to cultivate higher learning skills in their early years (Rand & Morrow, 2018). This study has the potential to provide insight into the gap in children's reading and learning practice through recognizing and promoting the importance of the relationship between the at-home reading literacy activities of prekindergartners and beginning kindergarteners' reading literacy scores.

Children learn to read more successfully in the academic setting if there has been a strong foundation at home in preinstructional reading literacy (Maleki & Nourdad, 2016). Carlson and Berger (2013) found that parental involvement during prekindergarten promoted children's school readiness and was associated with higher academic achievement and fewer behavioral problems in adolescence. Moreover, the earlier a parent began reading to his or her child, the more successful the child was in achieving the target reading level at the end of kindergarten (Andersen & Nielsen, 2016).

Limitations of the Study

Data in this study represented the kindergarten population and their parents of Title I schools in one school system in the southeastern United States. The results of the study are not generalizable to other students at different grade levels, to students in non-Title I school, or students in other parts of the state or country. In this study, I focused on reading literacy guided by parent involvement and archival data from entering kindergarten students. One limitation in this study was that I could not record literacy activities over time in the preschool years as they happened. I would have liked include prekindergarten and childcare students' parents because I would like to see if it would be more impactful to begin teaching at-home literacy activities earlier and to encourage these parents to engage in them actively. In doing so, I believe more students entering kindergarten would be on the early kindergarten level on the mandated testing for entering kindergarteners.

Recommendations

I offer the following recommendations related to the relationship between parental recollection of the at-home reading literacy activities of prekindergarteners and beginning kindergarteners' reading literacy.

1. I recommend offering parent workshops on how to help their child at home with various activities to promote literacy.
2. I recommend interviewing parents to see what specific literacy games and activities that they used to teach their child.

Implications

Insights from the present study provide the basis for positive social change for students and parents as well as teachers and administrators and potentially offers evidence on the importance of at-home literacy activities for prekindergartners. There has been a global push for improving school-age children to be successful in reading for the last decade (Ng & Graham, 2017). It has become incumbent upon policymakers at the state and local level as well as for school districts to improve literacy.

In the 21st century, school systems across the country are being called upon to engage actively in preparing students to be literate (Ng & Graham, 2017). Literacy is both socially and culturally interwoven. Based on the data collected in this study, it was apparent that at-home literacy activities can positively influence students' literacy. Without strong at-home literacy activities, children will enter school behind their grade-level peers and struggle to catch up to the age-appropriate reading level. Formal reading

instruction should begin much sooner in the preprimary and kindergarten grades to help develop readers of tomorrow.

Conclusion

The findings of this study suggested that the percentage of at-home literacy activities performed by parents needs to increase to help prepare entering kindergartners to be on grade level. Without these at-home literacy activities, the potential long-term effect is that there will be a continuous cycle of students entering kindergarten with literacy deficiencies and unequipped with the basic alphabetic, phonemic, and phonological awareness knowledge to be successful. As a result, early childhood educators and administrators need to continue to encourage parents to participate in their child's learning process before entering kindergarten. Educators should continue to motivate school districts to bring awareness to help early childhood parents with promoting at-home literacy activities to help combat literacy deficiencies. School districts could host workshops to help parents learn how they can assist their children in learning their sounds and letters.

In conclusion, early childhood educators must provide the necessary resources and activities to build a strong literacy and language foundation. Without a solid foundation, future literacy growth will continue to be delayed, which would lead to poor motivation in reading and weak performance in school. With parental involvement at home, entering kindergarteners can make significant gains and become more successful as readers.

Ideally, childcare and preschool teachers could work to inform parents about the importance of literacy activities at-home before entering kindergarten and the effect of reading literacy while in kindergarten. The importance of schools and parents working together must be reiterated to improve the quality of students' literacy.

References

Allington, R. L. (2017). We could teach every child to read, but the unanswered question is: Will we? In D. Ness & S. Farenga (Eds.), *Alternatives to privatizing public education and curriculum: Festschrift in honor of Dale D. Johnson* (pp. 101-118). New York, NY: Routledge.

Almirall, D., Kasari, C., McCaffrey, D. F., & Nahum-Shani, I. (2018). Developing optimized adaptive interventions in education. *Journal of Research on Educational Effectiveness, 11*(1), 27-34. doi:10.1080/19345747.2017.1407136

Andersen, S. C., & Nielsen, H. S. (2016). Reading intervention with a growth mindset approach improves children's skills. *Proceedings of the National Academy of Sciences, 113*(43), 12111-12113. doi:10.1073/pnas.1607946113

Anderson, K. L., Atkinson, T. S., Swaggerty, E. A., & O'Brien, K. (2019). Examining relationships between home-based shared book reading practices and children's language/literacy skills at kindergarten entry. *Early Child Development and Care, 189*(13), 2167-2182. doi:10.1080/03004430.2018.1443921

Baroody, A. E., & Diamond, K. E. (2016). Associations among preschool children's classroom literacy environment, interest, and engagement in literacy activities, and early reading skills. *Journal of Early Childhood Research, 14*(2), 146-162. doi:10.1177/1476718X14529280

Berendes, K., & Weinert, S. (2016). Selecting appropriate phonological awareness indicators for the kindergarten cohort of the National Educational Panel Study: A theoretical and empirical approach. In H. P. Blossfeld, J. von Maurice, M.

Bayer, & J. Skopek (Eds.), *Methodological issues of longitudinal surveys* (pp. 401-425). Wiesbaden, Germany: Publisher. doi:10.1007/978-3-658-11994-2_23

Bierman, K. L., Welsh, J., Heinrichs, B. S., & Nix, R. L. (2018). Effect of preschool home visiting on school readiness and need for services in elementary school: A randomized clinical trial. *JAMA Pediatrics*, *172*(8), e181029-e181029. doi:10.1001/jamaediatrics.2018.1029

Bierman, K. L., Welsh, J. A., Heinrichs, B. S., Nix, R. L., & Mathis, E. T. (2015). Helping head start parents to promote their children's kindergarten adjustment: The research-based developmentally informed parent program. *Child Development*, *86*(6), 1877-1891. doi:10.1111/cdev.12448

Blake, B., & Pope, T. (2008). Developmental psychology: Incorporating Piaget's and Vygotsky's theories in classrooms. *Journal of Cross-Disciplinary Perspectives in Education*, *1*(1), 59-67. doi:10.4236/jbbs.2018.86024

Boardman, A., Vaughn, S., & Klingner, J. (2018). Teaching collaborative strategic reading (CSR) to students with learning disabilities. In N. Young, C. Michael, & T. Citro (Eds.), *From floundering to fluent: Reaching and teaching struggling readers* (pp. 83-94). New York, NY: Rowman & Littlefield.

Bojczyk, K. E., Haverback, H. R., Pae, H. K., Hairston, M., & Haring, C. D. (2019). Parenting practices focusing on literacy: A study of cultural capital of kindergarten and first-grade students from low-income families. *Early Child Development and Care*, *189*(3), 500-512. doi:10.1080/03004430.2017.1328416

Bolarinwa, O. A. (2015). Principles and methods of validity and reliability testing of

questionnaires used in social and health science researches. *Nigerian Postgraduate Medical Journal*, *22*(4), 195-201. doi:10.4103/1117-1936.173959

Bormanaki, H. B., & Khoshhal, Y. (2017). The role of equilibration in Piaget's theory of cognitive development and its implication for receptive skills: A theoretical study. *Journal of Language Teaching and Research*, *8*(5), 996-1005. doi:10.17507/jltr.0805.22

Bratsch-Hines, M. E., Burchinal, M., Peisner-Feinberg, E., & Franco, X. (2019). Frequency of instructional practices in rural prekindergarten classrooms and associations with child language and literacy skills. *Early Childhood Research Quarterly*, *47*, 74-88. doi:10.1016/j.ecresq.2018.10.001

Bzostek, S. H., & Berger, L. M. (2017). Family structure experiences and child socioemotional development during the first nine years of life: Examining heterogeneity by family structure at birth. *Demography*, *54*(2), 513-540. doi:10.1007/s13524-017-0563-5

Cabell, S. Q., Zucker, T. A., DeCoster, J., Melo, C., Forston, L., & Hamre, B. (2019). Prekindergarten interactive book reading quality and children's language and literacy development: Classroom organization as a moderator. *Early Education and Development*, *30*(1), 1-18. doi:10.1080/10409289.2018.1514845

Carlson, M. J., & Berger, L. M. (2013). What kids get from parents: Packages of parental involvement across complex family forms. *Social Service Review*, *87*(2), 213-249. doi:10.1086/671015

Christopher, M. E., Hulslander, J., Byrne, B., Samuelsson, S., Keenan, J. M., Pennington,

B., & Olson, R. K. (2015). Genetic and environmental etiologies of the longitudinal relations between pre-reading skills and reading. *Child Development*, *86*(2), 342-361. doi:10.1111/cdev.12295

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Retrieved from www.utstat.toronto.edu/~brunner/oldclass/378f16/readings/CohenPower.pdf

Cooc, N., & Kim, J. S. (2017). Peer influence on children's reading skills: A social network analysis of elementary school classrooms. *Journal of Educational Psychology*, *109*(5), 727-740. doi:10.1037/edu0000166

Creswell, J. (2016). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.

D'Agostino, J. V., & Rodgers, E. (2017). Literacy achievement trends at the entry to first grade. *Educational Researcher*, *46*(2), 78-89. doi:10.3102/0013189X17697274

Daly, E. J., Neugebauer, S., Chafouleas, S. M., & Skinner, C. H. (2015). *Interventions for reading problems: Designing and evaluating effective strategies*. New York, NY: Guilford Publications.

Darling-Hammond, L. (2015). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.

DeBaryshe, B. D., & Gauci, K. T. (2017). Early reading first as a model for improving preschool literacy instruction and outcomes. In C. McLachian & A. Arrow (Eds.), *Literacy in the early years* (pp. 175-197). New York, NY: Springer.

Dombrowski, S. C., & Gischlar, K. L. (2014). Ethical and empirical considerations in the

identification of learning disabilities. *Journal of Applied School Psychology*, *30*(1), 68-82. doi:10.1080/15377903.2013.869786

Duncan, R. J., Schmitt, S. A., Burke, M., & McClelland, M. M. (2018). Combining a kindergarten readiness summer program with a self-regulation intervention improves school readiness. *Early Childhood Research Quarterly*, *42*, 291-300. doi:10.1016/j.ecresq.2017.10.012

Erickson, J. D., & Wharton-McDonald, R. (2019). Fostering autonomous motivation and early literacy skills. *Reading Teacher*, *72*(4), 475-483. doi:10.1002/trtr.1750

Eriksen, B. M. S., Færden, A., Lockertsen, Ø., Bjørkly, S., & Roaldset, J. O. (2018). Predictive validity and gender differences in a biopsychosocial model of violence risk assessment in acute psychiatry. *Psychiatry Research*, *264*, 270-280. doi:10.1016/j.psychres.2018.04.021

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149-1160. doi:10.3758/BRM.41.4.1149

Froiland, J. M., Peterson, A., & Davison, M. L. (2013). The long-term effects of early parent involvement and parent expectation in the USA. *School Psychology International*, *34*(1), 33-50. doi:10.1177/0143034312454361

Gatlin, B., & Wanzek, J. (2015). Relations among children's use of dialect and literacy skills: A meta-analysis. *Journal of Speech, Language, and Hearing Research*, *58*(4), 1306-1318. doi:10.1044/2015_JSLHR-L-14-0311

Gillon, G., & Macfarlane, A. H. (2017). A culturally responsive framework for enhancing

phonological awareness development in children with speech and language impairment. *Speech, Language and Hearing*, *20*(3), 163-173. doi:10.1080/2050571X.2016.1265738

Goble, P., & Pianta, R. C. (2017). Teacher-child interactions in free choice and teacher-directed activity settings: Prediction to school readiness. *Early Education and Development*, *28*(8), 1035-1051. doi:10.1080/10409289.2017.1322449

Goldberg, H. R., & Lederberg, A. R. (2015). Acquisition of the alphabetic principle in deaf and hard-of-hearing preschoolers: The role of phonology in letter-sound learning. *Reading and Writing: An Interdisciplinary Journal*, *28*(4), 509-525. doi:10.1007/s11145-014-9535-y

Gonida, E. N., & Cortina, K. S. (2014). Parental involvement in homework: Relations with parent and student achievement-related motivational beliefs and achievement. *British Journal of Educational Psychology*, *84*(3), 376-396. doi:10.1111/bjep.12039

Goodall, J., & Montgomery, C. (2014). Parental involvement in parental engagement: A continuum. *Educational Review*, *66*(4), 399-410. doi:10.1080/00131911.2013.781576

Graham, L. J. (2018). Student compliance will not mean 'all teachers can teach': A critical analysis of the rationale for 'no excuses' discipline. *International Journal of Inclusive Education*, *22*(11), 1242-1256. doi:10.1080/13603116.2017.1420254

Gravetter, F. J., & Wallnau, L. B. (2005). *Essentials of statistics for the behavioral sciences* (5th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Hamilton, L. G., Hayiou-Thomas, M. E., Hulme, C., & Snowling, M. J. (2016). The home literacy environment as a predictor of the early literacy development of children at family-risk of dyslexia. *Scientific Studies of Reading*, *20*(5), 401-419. doi:10.1080/10888438.2016.1213266

Hamre, B., Hatfield, B., Pianta, R., & Jamil, F. (2014). Evidence for general and domain-specific elements of teacher-child interactions: Associations with preschool children's development. *Child Development*, *85*(3), 1257-1274. doi:10.1111/cdev.12184

Hartman, S., Winsler, A., & Manfra, L. (2017). Behavior concerns among low-income, ethnically and linguistically diverse children in child care: Importance for school readiness and kindergarten achievement. *Early Education and Development*, *28*(3), 255-273. doi:10.1080/10409289.2016.1222121

Hausfather, S. J. (1996). Vygotsky and schooling: Creating a social context for learning. *Action in Teacher Education*, *18*(2), 1-10. doi:10.1080/01626620.1996.10462828

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, *18*(3), 66-67. doi:10.1136/eb-2015-102129

Heath, S. M., Bishop, D. V., Bloor, K. E., Boyle, G. L., Fletcher, J., Hogben, J. H., … Yeong, S. H. (2014). A spotlight on preschool: The influence of family factors on children's early literacy skills. *PLoS One*, *9*(4). doi:10.1371/journal.pone.0095255

Heilmann, J. J., Moyle, M. J., & Rueden, A. M. (2018). Using alphabet knowledge to track the emergent literacy skills of children in head start. *Topics in Early*

Childhood Special Education, *38*(2), 118-128. doi:10.1177/0271121418766636

Hvit, S. (2015). Literacy events in toddler groups: Preschool educators' talk about their work with literacy among toddlers. *Journal of Early Childhood Literacy*, *15*(3), 311-330. doi:10.1177/1468798414526427

Inoue, T., Georgiou, G. K., Parrila, R., & Kirby, J. R. (2018). Examining an extended home literacy model: The mediating roles of emergent literacy skills and reading fluency. *Scientific Studies of Reading*, *22*(4), 273-288. doi:10.1080/10888438.2018.1435663

James, A., & Prout, A. (2015). A new paradigm for the sociology of childhood?: Provenance, promise, and problems. In A. Prout & A. James (Eds.), *Constructing and reconstructing childhood* (pp. 6-28). New York, NY: Routledge.

Jarrett, R. L., Hamilton, M. B., & Coba-Rodriguez, S. (2015). "So, we would all help pitch in": The family literacy practices of low-income African American mothers of preschoolers. *Journal of Communication Disorders*, *57*, 81-93. doi:10.1016/j.j.comdis.2015.07.003

Keys, T. D., Farkas, G., Burchinal, M. R., Duncan, G. J., Vandell, D. L., Li, W.,... Howes, C. (2013). Preschool center quality and school readiness: Quality effects and variation by demographic and child characteristics. *Child Development*, *84*(4), 1171-1190. doi:10.1111/cdev.12048

Kim, Y. S. G. (2015). Developmental, component-based model of reading fluency: An investigation of predictors of word-reading fluency, text-reading fluency, and reading comprehension. *Reading Research Quarterly*, *50*(4), 459-481.

doi:10.1002/rrq.107

Kosinski, M., Matz, S. C., Gosling, S. D., Popov, V., & Stillwell, D. (2015). Facebook as a research tool for the social sciences: Opportunities, challenges, ethical considerations, and practical guidelines. *American Psychologist*, *70*(6), 543. doi:10.1037/a0039210

Kruse, L. G., Spencer, T. D., Olszewski, A., & Goldstein, H. (2015). Small groups, big gains: Efficacy of a Tier 2 phonological awareness intervention with preschoolers with early literacy deficits. *American Journal of Speech-Language Pathology*, *24*(2), 189-205. doi:10.1044/2015_AJSLP-14-0035

Kunzman, R., & Gaither, M. (2013). Homeschooling: A comprehensive survey of the research. *Other Education*, *2*(1), 4-59.

Lee, L., Reinicke, B., Sarkar, R., & Anderson, R. (2015). Learning through interactions: Improving project management through communities of practice. *Project Management Journal*, *46*(1), 40-52. doi:10.1002/pmj.21473

Lovett, M. W., Barron, R. W., & Frijters, J. C. (2014). Word identification difficulties in children and adolescents with reading disabilities: Intervention research findings. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 329-360). New York, NY: The Guilford Press.

Luo, T., Lee, G. L., & Molina, C. (2017). Incorporating Istation into early childhood classrooms to improve reading comprehension. *Journal of Information Technology Education: Research*, *16*, 247-266. Retrieved from http://www.informingscience.org/Publications/3788

Ma, X., Shen, J., Krenn, H. Y., Hu, S., & Yuan, J. (2016). A meta-analysis of the relationship between learning outcomes and parental involvement: During early childhood education and early elementary education. *Educational Psychology Review*, *28*(4), 771-801. doi:10.1007/s10648-015-9351-1

Maleki, G., & Nourdad, N. (2016). A comparative study on the effect of pre-instruction and while-instruction alphabet teaching in EFL context. *Theory and Practice in Language Studies*, *6*(3), 571-576. doi:10.17507/tpls.0603.15

Manigo, C., & Allison, R. (2017). Does pre-school education matter? Understanding the lived experiences of parents and their perceptions of preschool education. *Teacher Educators' Journal*, *10*, 5-42.

Marino, M. J. (2018). How often should we expect to be wrong? Statistical power, P values, and the expected prevalence of false discoveries. *Biochemical Pharmacology*, *151*, 226-233. doi:10.1016/j.bcp.2017.12.011

Marsh, J., Hannon, P., Lewis, M., & Ritchie, L. (2017). Young children's initiation into family literacy practices in the digital age. *Journal of Early Childhood Research*, *15*(1), 47-60. doi:10.1177/1476718X15582095

Martinussen, R., Grimbos, T., & Ferrari, J. L. (2014). Word-level reading achievement and behavioral inattention: Exploring their overlap and relations with naming speed and phonemic awareness in a community sample of children. *Archives of Clinical Neuropsychology*, *29*(7), 680-690. doi:10.1093/arclin/acu040

McGee, L. M., & Richgels, D. J. (2014). *Designing early literacy programs: Differentiated instruction in preschool and kindergarten* (2nd ed.). New York,

NY: Guilford Publications.

Morera, O. F., & Stokes, S. M. (2016). Coefficient α as a measure of test score reliability: Review of 3 popular misconceptions. *American Journal of Public Health, 106*(3), 458-461. doi:10.2105/AJPH.2015.302993

Murray, E., McFarland-Piazza, L., & Harrison, L. J. (2015). Changing patterns of parent–teacher communication and parent involvement from preschool to school. *Early Child Development and Care, 185*(7), 1031-1052. doi:10.1080/03004430.2014.975223

National Reading Panel (US), National Institute of Child Health, Human Development (US), National Reading Excellence Initiative, National Institute for Literacy (US), United States. Public Health Service, & United States Department of Health. (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. Sandy, OR: National Institute of Child Health and Human Development, National Institutes of Health.

Ng, C., & Graham, S. (2017). Engaging readers in the twenty-first century: What we know and need to know more. In C. Ng & S. Graham (Eds.), *Improving reading and reading engagement in the 21st century: International research and innovation* (pp. 17-46). Singapore: Publisher.

Nitecki, E. (2015). Integrated school-family partnerships in preschool: Building quality involvement through multidimensional relationships. *School Community*

Journal, *25*(2), 195-219.

Núñez, J. C., Epstein, J. L., Suárez, N., Rosário, P., Vallejo, G., & Valle, A. (2017). How do student prior achievement and homework behaviors relate to perceived parental involvement in homework?. *Frontiers In Psychology*, *8*, 1217. doi:10.3389/fpsyg.2017.01217

Ojose, B. (2008). Applying Piaget's theory of cognitive development to mathematics instruction. *The Mathematics Educator, 18*(1), 26-30.

Ouellette, G., & Sénéchal, M. (2017). Invented spelling in kindergarten as a predictor of reading and spelling in Grade 1: A new pathway to literacy, or just the same road, less known? *Developmental Psychology*, *53*(1), 77. doi:10:1037/dev0000179

Ozernov-Palchik, O., Norton, E. S., Sideridis, G., Beach, S. D., Wolf, M., Gabrieli, J. D., & Gaab, N. (2017). Longitudinal stability of pre-reading skill profiles of kindergarten children: implications for early screening and theories of reading. *Developmental Science*, *20*(5), e12471. doi:10.1111/desc.12471

Pavalache-Ilie, M., & Ţîrdia, F. A. (2015). Parental involvement and intrinsic motivation with primary school students. *Procedia-Social and Behavioral Sciences, 187,* 607-612. doi:10.1016/j.sbspro.2015.03.113

Penney, C., Drover, J., & Dyck, C. (2015). Phonological processing deficits and the acquisition of the alphabetic principle in a severely delayed reader: A case study. *Dyslexia, 15*(4), 263-281. doi:10.1002/dys.374

Piaget, J. (1936). *Origins of intelligence in the child.* London, England: Routledge & Kegan Paul.

Pianta, R., Hamre, B., Downer, J., Burchinal, M., Williford, A., LoCasale-Crouch, J., ... & Scott-Little, C. (2017). Early childhood professional development: Coaching and coursework effects on indicators of children's school readiness. *Early Education and Development*, *28*(8), 956-975. doi:10.1080/10409289.2017.1319783

Rahman, T., Bandeira de Mello, V., Fox, M. A., & Ji, C. S. (2019). Mapping state proficiency standards onto the NAEP Scales: Results from the 2017 NAEP Reading and Mathematics Assessments. NCES 2019-040. Washington, DC: National Center for Education Statistics.

Rand, M. K., & Morrow, L. M. (2018). The impact of pivotal research on the role of plain early literacy development. In C. Cassano & S. Dougherty (Eds.), *Pivotal research in early literacy: Foundational studies and current practices* (pp. 238-256). New York, NY: Guilford Press.

Reardon, S. F., & Portilla, X. A. (2016). Recent trends in income, racial, and ethnic school readiness gaps at kindergarten entry. *AERA Open*, *2*(3), 1-18. doi:10.1177.2332858416657343

Reed, D. K., Petscher, Y., & Foorman, B. R. (2016). The contribution of vocabulary knowledge and spelling to the reading comprehension of adolescents who are and are not English language learners. *Reading and Writing: An Interdisciplinary Journal*, *29*(4), 633-657. doi:10.1007/s11145-015-9619-3

Romstad, C., & Xiong, Z. B. (2017). Measuring Formal Intelligence in the Informal Learner: A Case Study of Hmong American Students and Cognitive

Assessment. *Hmong Studies Journal*, *18*, 1-31.

Saçkes, M., Işıtan, S., Avci, K., & Justice, L. M. (2016). Parents' perceptions of children's literacy motivation and their home-literacy practices: what's the connection?. *European Early Childhood Education Research Journal*, *24*(6), 857-872. doi:10.1080/135023X.2014.996422

Saracho, O. (2017). Literacy and language: New developments in research, theory, and practice. *Journal of Early Childhood Development and Care, 187(3-4),* 299-304. doi:10.1080/03004430.2017.1282235

Scheider, S., Ostermann, F. O., & Adams, B. (2017). Why good data analysts need to be critical synthesists. Determining the role of semantics in data analysis. *Future Generation Computer systems, 72,* 11-22. doi:10.1016/j.future.2017.02.046

Schryer, E., Sloat, E., & Letourneau, N. (2015). Effects of an animated book reading intervention on emergent literacy skill development: An early pilot study. *Journal of Early Intervention*, *37*(2), 155-171. doi:10.1177/105381511598842

Shanahan, T., Fisher, D., & Frey, N. (2016). The challenge of challenging text. In M. Scherer, D. Perkins-Gough, K. Greene, N. Theirs, & L. Robertson (Eds.), *On developing readers: Readings from educational leadership* (pp. 100-109). Alexandria, VA: ASCD.

Siegmund, J., Siegmund, N., & Apel, S. (2015). Views on internal and external validity in empirical software engineering. In S. Apel, J. Siegmund, & N. Siegmund (Eds.), *2015 IEEE/ACM 37th IEEE International Conference on Software Engineering* (pp. 9-19). doi:10.1109/ICSE.2015.24

Skwarchuk, S. L., Sowinski, C., & LeFevre, J. A. (2014). Formal and informal home learning activities in relation to children's early numeracy and literacy skills: The development of a home numeracy model. *Journal of Experimental Child Psychology*, *121*, 63-84. doi:10.1016/j.jecp.2013.11.006

Solari, E. J., Aceves, T. C., Higareda, I., Richards-Tutor, C., Filippini, A. L., Gerber, M. M., & Leafstedt, J. (2014). Longitudinal prediction of 1st and 2nd grade English oral reading fluency in English language learners: Which early reading and language skills are better predictors?. *Psychology in the Schools*, *51*(2), 126-142. doi:10.1002/pits.21743

Staempfli, A., Tov, E., Kunz, R., Tschopp, D., & Eugster Stamm, S. (2016). Improving professionalism through reflection and discourse in communities of practice: the key situations in the social work model and project. *Journal of Practice Teaching and Learning*, *14*(2), 59-79. doi:10.1921/jpts.v14i2.940

Stanley, C. T., Petscher, Y., & Catts, H. (2018). A longitudinal investigation of direct and indirect links between reading skills in kindergarten and reading comprehension in tenth grade. *Reading and Writing*, *31*(1), 133-153. doi:10.1007/s11145-017-9777-6

Suggate, S. P. (2016). A meta-analysis of the long-term effects of phonemic awareness, phonics, fluency, and reading comprehension interventions. *Journal of Learning Disabilities*, *49*(1), 77-96. doi:10.1177/2F0022219414528540

Sundberg, B., Areljung, S., Due, K., Ekström, K., Ottander, C., & Tellgren, B. (2016). Understanding preschool emergent science in a cultural historical context through

activity theory. *European Early Childhood Education Research Journal*, *24*(4), 567-580. doi:10.1080/1350293X.2014.978557

Sylva, K. (2014). The role of families and pre-school in educational disadvantage. *Oxford Review of Education*, *40*(6), 680-695. doi:10.1080/03054985.2014.979581

Teng, W., Hackett, R. K., & Draheim, M. E. (2017, February). Associations between Chinese parents' reading beliefs, home literacy practices, children's reading interests and literacy development. In *2017 2nd International Conference on Humanities and Social Science (HSS 2017)*. Paris, France: Atlantis Press. doi:10.2991/hss-17.2017.109

Tiernan, B., & Kerins, P. (2014). Challenges and opportunities in today's changing classrooms: Planning to support the development of literacy skills in the early years. In N. Fortune, A. Kelly, & F. Fhionnlaoich (Eds.), *Language, literacy, and literature: Re-imagining teaching and learning* (pp. 45-55). Dublin, Ireland: Reading Association of Ireland.

Trapman, M., van Gelderen, A., van Schooten, E., & Hulstijn, J. (2018). Writing proficiency level and writing development of low-achieving adolescents: The roles of linguistic knowledge, fluency, and metacognitive knowledge. *Reading and Writing*, *31*(4), 893-926. doi:10.1007/s11145-018-9818-9

Treiman, R., Kessler, B., Pollo, T. C., Byrne, B., & Olson, R. K. (2016). Measures of kindergarten spelling and their relations to later spelling performance. *Scientific Studies of Reading*, *20*(5), 349-362. doi:10.1080/10888438.2016.1186168

Vaknin-Nusbaum, V., & Nevo, E. (2017). A joint interactive storybook intervention

program for preschool and kindergarten children. *Reading Psychology*, *38*(3), 231-261. doi:10.1080/02702711.2016.1258376

van Bergen, E., Bishop, D., van Zuijen, T., & de Jong, P. F. (2015). How does parental reading influence children's reading? A study of cognitive mediation. *Scientific Studies of Reading*, *19*(5), 325-339. doi:10.1080/10888438.2015.1050103

van Bysterveldt, A., Foster-Cohen, S., & Gillon, G. T. (2013). Engaging families in promoting emergent literacy for children with down syndrome. In H. Krider, M. Caspe, & D. Hiatt-Michael (Eds.), *Promising practices for engaging families in literacy* (pp. 29-41). Charlotte, NC: Information Age Publishing.

van der Pluijm, M., van Gelderen, A., & Kessels, J. (2019). Activities and strategies for parents with less education to promote the oral language development of their children: A review of empirical interventions. *School Community Journal*, *29*(1), 317-362.

Vygotsky, L. (1978). *Mind in society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.

Washburn, E. K., & Mulcahy, C. A. (2014). Expanding preservice teachers' knowledge of the English language: Recommendations for teacher educators. *Reading & Writing Quarterly*, *30*(4), 328-347. doi:10.1080/10573569.2013.819180

Wong, K. K. Y. (2015). Implementing parent engagement policy in an increasingly culturally diverse community of new immigrants: How new is" new"? *Canadian Journal of Education*, *38*(3), 1-30.

Yeo, L. S., Ong, W. W., & Ng, C. M. (2014). The home literacy environment and

preschool children's reading skills and interest. *Early Education and Development*, *25*(6), 791-814. doi:10.1080/10409289.2014.862147

Appendix A: Parent Recollection Survey (English)

Parent Recollection Survey

Please take a moment of your time to answer the attached survey. When you have finished, drop the completed survey in the slot of the locked box outside the classroom door or mail the completed questionnaire in the provided pre-paid envelope to the researcher's home address. The survey is strictly voluntary and not affiliated with the school.

Instructions: This survey has been divided into four choices/answers:

1 NEVER happened at home
2 OCCASIONALLY occurred at home (1 to 2 times a week)
3 SOMETIMES occurred at home (3 to 5 times a week)
4 FREQUENTLY occurred at home (6 or more times a week)

Answer honestly and thoughtfully by circling the number of your choice.

HOW OFTEN DID YOU OR SOMEONE DO THESE THINGS WITH YOUR CHILD AT HOME?

SURVEY QUESTIONS **CHOICES**

RECOLLECTION OF READING BOOKS

Questions	**Never** **Frequently**
1. Read a fairy tale or book at bedtime?	**1 2 3 4**
2. Read a fairy tale or book at any time during the day?	**1 2 3 4**
3. Ask the child to point to the title, author, or illustrator.	**1 2 3 4**
4. Ask your child "What do you think will happen next?"	**1 2 3 4**
5. Ask your child, "Tell the story in your own words."	**1 2 3 4**
6. Makeup stories, poems, or new games after reading a book?	**1 2 3 4**
7. Ask the child to describe the picture in the story.	**1 2 3 4**

8. Act the story out with a toy animal to recreate the action in the story.	**1 4**	**2**	**3**
9. Retells the tale while turning the pages.	**1 4**	**2**	**3**
10. How often do you use public library books to read to your child?	**1 4**	**2**	**3**
RECOGNIZING LETTER NAMES OR SOUNDS			
11. Ask the child to point to a specific word and explain it.	**1 4**	**2**	**3**
12. Make up rhyming words with your child? (fun, run, sun).	**1 4**	**2**	**3**
13. Ask the child to point to the letter and say the letter.	**1 4**	**2**	**3**
14. Ask the child to point to a word and say the word.	**1 4**	**2**	**3**
15. Use pencils or crayons to write like you.	**1 4**	**2**	**3**
16. Ask your child to find a specific word in the story.	**1 4**	**2**	**3**
17. Play games and activities using your hands or fingers? (i.e., Where is Pinky? Here I am.)	**1 4**	**2**	**3**
18. Clap out or count the number of syllables in words (esp. new words).	**1 4**	**2**	**3**
19. Ask your child to count the syllables in words.	**1 4**	**2**	**3**
20. Sing the ABC song with your child?	**1 4**	**2**	**3**
21. Label the pictures of different objects in a book.	**1 4**	**2**	**3**
22. Sing any pattern or repeating a song with your child?	**1 4**	**2**	**3**
23. Ask questions about the sound of different letters.	**1 4**	**2**	**3**
24. Ask questions about what a passage may say.	**1 4**	**2**	**3**
25. Makes up nonsense words or pretend to talk in a different language.	**1 4**	**2**	**3**

Thank you for taking the time to complete the survey. Your input was much appreciated.

Appendix B: Parent Recollection Survey (Spanish)

Encuesta de Recogimiento para Padres

Por favor, tómese un momento de su tiempo para responder a la encuesta adjunta. Cuando haya terminado, suelte la encuesta completada en la ranura de la caja cerrada fuera de la puerta del aula o envíe por correo el cuestionario completado en el sobre prepagado proporcionado a la dirección de inicio del investigador. La encuesta es estrictamente voluntaria y no está afiliada a la escuela.

Instrucciones: Esta encuesta se ha dividido en cuatro opciones/respuestas:

1 NUNCA sucedió en casa
2 OCCASIONALLY ocurrió en casa (1 a 2 veces a la semana)
3 A VECES ocurrió en casa (3 a 5 veces a la semana)
4 FRECUENTE mente ocurrido en casa (6 o más veces a la semana)

Responde honestamente y cuidadosamente dando vueltas al número de tu elección.

¿CON QUÉ FRECUENCIA USTED O ALGUIEN HICIERON ESTAS COSAS CON SU HIJO EN CASA?

OPCIONES DE PREGUNTAS DE ENCUESTA

RECUERDO DE LA LECTURA DE LIBROS

Preguntas	**Nunca**		**con frecuencia**	
1. ¿Leer un cuento de hadas o un libro a la hora de acostarse?	**1**	**2**	**3**	**4**
2. Leer un cuento de hadas o libro en cualquier momento del día?	**1**	**2**	**3**	**4**
3. Pida al niño que apunte al título, autor o ilustrador.	**1**	**2**	**3**	**4**
4. Pregúntele a su hijo "¿Qué cree que sucederá a continuación?"	**1**	**2**	**3**	**4**

5. Pregúntele a su hijo: "Cuente la historia con sus propias palabras."	**1**	**2**	**3**	**4**
6. ¿Historias de maquillaje, poemas o nuevos juegos después de leer un libro?	**1**	**2**	**3**	**4**
7. Pida al niño que describa la lámina de la historia.	**1**	**2**	**3**	**4**
8. Actuar la historia con un animal de juguete para recrear la acción en la historia.	**1**	**2**	**3**	**4**
9. Relata la historia mientras pasa las páginas.	**1**	**2**	**3**	**4**
10. ¿Con qué frecuencia utiliza libros de bibliotecas públicas para leer a su hijo?	**1**	**2**	**3**	**4**
RECONOCER NOMBRES O SONIDOS DE LETRAS	**1**	**2**	**3**	**4**
11. Pida al niño que señale una palabra específica y la explique.	**1**	**2**	**3**	**4**
12. ¿Inponer palabras que riman con su hijo? (diversión, correr, sol).	**1**	**2**	**3**	**4**
13. Pida al niño que apunte a la carta y diga la letra.	**1**	**2**	**3**	**4**
14. Pida al niño que señale una palabra y diga la palabra.	**1**	**2**	**3**	**4**
15. Usa lápices o lápices de colores para escribir como tú.	**1**	**2**	**3**	**4**
16. Pida a su hijo que encuentre una palabra específica en la historia.	**1**	**2**	**3**	**4**
17. ¿Juega juegos y actividades con las manos o los dedos? (esdecir, ¿dónde está Pinky? Aquí estoy.)	**1**	**2**	**3**	**4**
18. Aplaudir o contar el número de sílabas en palabras (esp. palabras nuevas).	**1**	**2**	**3**	**4**
19. Pida a su hijo que cuente las sílabas con palabras.	**1**	**2**	**3**	**4**
20. ¿Cantar la canción de ABC con su hijo?	**1**	**2**	**3**	**4**
21. Etiquetar las imágenes de diferentes objetos en un libro.	**1**	**2**	**3**	**4**
22. ¿Cantar cualquier patrón o repetir una canción con su hijo?	**1**	**2**	**3**	**4**
23.Preguntepreguntas sobre elsonidode diferentes letras.	**1**	**2**	**3**	**4**
24. Haga preguntas acerca de lo que un pasaje puede decir.	**1**	**2**	**3**	**4**
25. Inventa palabras sin sentido o pretend para hablar en un idioma diferente.	**1**	**2**	**3**	**4**

Gracias por tomarse el tiempo para completar la encuesta. Su opinión fue muy apreciada.

Appendix C: Permission Letter

Permission letter

Anne van Bysterveldt <XXXXXXX>

Reply all

Tue 8/8/2017, 6:41 PM

Shera C. Caviness

Inbox

Dear Shera, thank you for your email requesting permission to use some parts of the literacy questionnaire. I am absolutely fine with that, please just acknowledge this as appropriate. You may also be interested in keeping a look out for another article a colleague and I have recently completed (it is in press) in which we used a subset of these questions. In it we combined categories like “usually” and “often” and we also combined “daily” and “several times a day” so we had a 5-point Likert scale rather than 6. You might find it useful to do this as well as I believe it will simplify the answering for families without losing any information for you.

The article is Westerveld, M. F., & van Bysterveldt, A. K. (in press). The home literacy environment of pre-schoolers with autism or Down syndrome. Folia Phoniatrica Et Logopaedica.

You might also like:

Westerveld MF., Gillon GT., Van Bysterveldt AK. and Boyd L. (2015) The emergent literacy skills of four-year-old children receiving free kindergarten early childhood education in New Zealand. International Journal of Early Years Education 23(4): 339-351.http://dx.doi.org/10.1080/09669760.2015.1033617.

Collings A., McNeill B. and van Bysterveldt A. (2012) An online survey of the Home Literacy Environments of teenage parents attending a Teen Parent Unit. New Zealand Journal of Speech-Language Therapy 67: 22-30

Westerveld, M. F., Paynter, J., Trembath, D., Webster, A. A., Hodge, A. M., & Roberts, J. (2017). The emergent literacy skills of preschool children with autism spectrum disorder. Journal of Autism and Developmental Disorders, 47(2), 424-438. doi:10.1007/s10803-016-2964-5

Brown, M. L., Westerveld, M. F., & Gillon, G. T. (2017). Early storybook reading with babies and young children: Parents' opinions and home reading practices. Australasian Journal of Early Childhood, 42(2). doi:10.23965/AJEC.42.2.09

Kind regards,

Anne

XXXXXXXXXXXXXXXXXXXXXX' +64 3 3693533 | anne.vanbysterveldt@canterbury.ac.nz
Private Bag 4800 | Christchurch 8140, NZ

Shera C. Caviness

Appendix D: Letter to Adapt and Translate Survey

Oct 24, 2019

Dear Shera, thank you for your email. I will be using a new address from now on so if you do need to contact me again please do so via XXXXXX

I am happy to confirm permission for you to use, adapt and translate as required the original survey so as to better meet the needs of your own study population.

Best wishes on your journey to achieving your Doctor of Education qualification. I acknowledge the efforts in this important work and as we say in te reo in New Zealand kia kaha, kia maia, kia manawanui. kind regards,

Anne

Anne van Bysterveldt, PhD.
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Appendix E: Permission to Use Survey

August 8, 2017

Dr. Anne van Bysterveldt
XXXXXXXXXXXXXXXXX XXXXXXDear Dr. Anne van Bysterveldt,

I am writing to request permission to reprint part or portion of your survey entitled *Developing Literacy Questionnaire*. I would like to keep the reliability and validity to the survey; however, I may need to adjust it more to my study, so that, it applies to my study. Please respond back to either my email or home address listed below.

Thank you so much.

Sincerely,

Shera C. Caviness,
Walden University Doctoral Student
XXXXXX