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Concepts About Print and Literacy Skill Acquisition of Preschool Students

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COLLEGE OF EDUCATION

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Cassandra Johnson

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2015

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Choosing the most effective method of teaching literacy acquisition that will improve student achievement is a challenge for many early childhood educators. The problem is the target school district where this study took place did not have a curriculum for preschool teachers to use that provided reading instruction. The purpose of this causal comparative study was to explore the relationship between Concepts About Print (CAP) scores of preschool students who received direct CAP instruction and those who received indirect instruction through indirect reading and writing activities. Guided by Marie Clay's theory, which concludes that reading difficulties among beginning readers stem from a lack of attention to print concepts, this study examined students' knowledge of print conventions. A comparative research design compared pre- and post-test scores on the CAP assessment. An analysis of covariance with the pretest as the covariate was also performed in this study. Results revealed that students who were taught print concepts directly scored higher on the CAP assessment than did the students who were taught indirectly. Research findings from this study could aid administrators in the target school district with developing a technique to teach reading for preschool teachers on the local level, which will lead to social change by providing each preschool student with the strong literacy foundation needed to ensure later school success. Lifelong readers can begin in preschool.

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Dedication

This study is dedicated to my fiancé, the late Rev. Timothy M. Hannibal, who passed away shortly after I began this journey. Thank you for giving me the support and courage to begin a far-fetched dream that has now become a reality.

~ Till We Meet Again~

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I would like to acknowledge the dedication and support of my doctoral committee. Dr. Benson and Dr. Griswold were instrumental in helping me to reach this goal. I extend my deepest gratitude and will forever be indebted to you for your guidance.

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Section 1: Introduction to the Study

Learning to read can be a challenging task for many students (Melekoglu, 2011). Although increasing numbers of children are accessing educational opportunities before kindergarten (Hopkins, Brookes, & Green, 2013; Wrobel, 2012), tremendous differences exist in the types and quality of preschool experiences available as well as the print experiences children possess upon entering kindergarten (Hughs, 2010). Some students understand basic concepts about print, while others have never received a formal introduction to them (Callaghan & Madelaine, 2012).

Research on effective preschool programs such as the Perry Preschool Project and the Abecedarian Early Childhood Intervention credits preschool attendance to developmental literacy (Sylvester & Kragler, 2012). These claims rest on findings that high quality preschool can instill in children the skills to succeed in school and beyond (Hughs, 2010). Preschool programs can close the achievement gap. Not only are they beneficial to students, parents, and school staff but they ease the transition to kindergarten. Even preschool students labeled as *at risk* of are better prepared than those who do not attend preschool programs (Shore, Shue, & Lambert, 2010).

Preschool also brings social benefits (Bortoli & Brown, 2008) and cost effective savings. Bracey and Stellar (2003) estimated that preschool saves 10 dollars for every one dollar spent. Duncan, Ludwig, and Magnuson (2008) estimated that early childhood programs would generate benefits of as much as 8 to 14 dollars for every one dollar spent and would reduce the poverty rate of participants by between 5 and 15% (Murnane, Sawhill, & Snow, 2012). According to Biddle (2007), attending preschool decreases the

likelihood of engaging in criminal and antisocial behavior, teen pregnancy or drug abuse in later life.

Recent federal polices and legislation, such as the No Child Left Behind (NCLB) Act, the Reading First Act, the implementation of the Common Core State Standards (CCSS), and the South Carolina Read to Succeed Act of 2014 has introduced new challenges on teachers. These initiatives emphasize the analysis of annual school reports, hold teachers accountable to achieve academic gains on a yearly basis and expect students to become literate at an earlier age (Massetti, 2009; Sandberg & Arlemalm-Hagser, 2011; Wilson & Barrows, 2012). In the midst of these mounting pressures and escalating academic demands, early childhood professionals are increasingly defending a child-centered approach to their teaching (Ede, 2006; Perlmutter, Folger, & Holt, 2009), a sharp contrast to previous educational practices that were focused more on readiness than on formal instruction (Teale & Yokota, 2000).

Some developmental psychologists have argued against earlier literacy education. Piaget (1952), as well as Zeng and Zeng (2005), argued that most 5-year-old children have not made the shift in cognition one finds in 6 or 7 year-old children. This shift increases the child's ability for logical thinking and self-direction. The argument suggests that 5-year-olds may be more similar to preschoolers than they are to primary grade children (Berk, 2003), exhibiting more anxiety (Hyson, Hirsh-Pasek, & Rescorla, 1990; Susa et al., 2008), and stress (Burts et al., 1993) in didactic and less developmentally appropriate environments. Findings suggest that developmentally inappropriate practices could produce detrimental effects on a child's natural predisposition to learn and result in

lower test scores (McKenzie, 2013). Such a disconnected approach to education could stifle their intrinsic motivation to explore; increase anxiety, guilt, inferiority, helplessness; putting children at risk of academic failure and emotional problems (Susa et al., 2008; Zeng & Zeng, 2005).

Some members of the early childhood education community have expressed concern that preschool is too early to begin teaching phonological awareness (Alliance for Childhood, 2006; Bredekamp & Copple, 1997; Elkind, 1987; Olfman, 2003). One of the most notable conclusions of the National Early Literacy Panel (NELP) report, however, is that literacy interventions had an equivalent, and substantial, effect on children, regardless of their age or print-related skills at the outset of the intervention (Phillips, Clancy-Menchetti, & Lonigan, 2008).

These findings refute the notion that early educators have to choose between imaginative play-based activities and developmentally focused activities that enhance early literacy skills such as phonological awareness. Children can benefit from well-designed early literacy instruction in a developmentally appropriate preschool context that also involves daily opportunities for independent exploration, dramatic play, and other important activities of early childhood (Chakraborty & Stone, 2009; Landry, Swank, Smith, Assel, & Gunnewig, 2006; Lonigan, Farver, Menchetti, Phillips, & Chamberlain, 2005, 2006; McKenney & Voogt, 2012; Phillips & Lonigan, 2005). Empirically supported instructional methods rely on consistent, brief, and interactive small group or individual sessions lasting no longer than 10 to 15 minutes a day (What Works Clearinghouse, 2007). Effective literacy instruction integrates into a curriculum

that simultaneously supports the development of children's language, social skills, motor skills, general knowledge, and interests.

The study of literacy acquisition in young children is not a new research topic. Marie Clay is a world-renowned innovator in literacy research who has conducted several studies spanning decades (Clay, 1985, 1989, 1991, 1993, 2005, 2006, 2013). One of Clay's (1989) first studies took place in the early 1960s on 5 and 6 year old children. Data collected weekly for two years recorded everything the children said and did when attempting to read. Clay concluded that reading difficulties among beginning readers stemmed from a lack of attention to print concepts and subsequently developed the Concepts About Print (CAP) observation assessment (see Appendix A) to determine what students, readers and nonreaders alike, are focusing on in print. The CAP has 24 items that assess children's knowledge of print conventions such as reading from left to right and top to bottom, and the difference between words and letters. The assessment consists of a book and checklist, and takes about 5 to 10 minutes to administer, during which time the teacher asks the student to assist in reading a book. The CAP provides early attention and intervention to struggling readers.

Clay introduced the term *emergent literacy* to describe the behaviors seen in young children when they use books and writing materials to imitate reading and writing, as well as when they observe, listen, and participate in literacy activities. Social interactions with caring adults and exposure to literacy materials develop emergent literacy (Wayne, DiCarlo, Burts, & Benedict, 2007). Emergent readers range in age and could be as young as newborns as they compound their new knowledge, adjust their old

knowledge to the new paradigm, and explore their environment (Mclachlan, Carvalho, De Lautour, & Kumar, 2006).

Many preschools utilize a play-based curriculum that does not teach reading (Callaghan & Madelaine, 2012). This research will look at the teaching styles of two teachers and determine which method, directly or indirectly teaching CAP, will promote the greatest literacy acquisition. The results of this research will provide a local model and can function as a guide for future literacy instruction. Additionally, it can contribute to a body of knowledge that addresses the different needs of preschool students by examining the relationship between the teaching of print concepts and reading achievement of preschool students.

If print concepts are taught directly, it is yet unknown if preschool students learn to read independently before students who are taught print concepts indirectly. Walden University's mission is to build scholar-practitioners who may transform society. This study has the potential to invoke social change by assisting preschool teachers as they strive to foster a love of reading while meeting their school's mandates for literacy acquisition.

Problem Statement

Choosing a method of teaching literacy acquisition that will most improve student achievement is a challenge for many early childhood educators. Researchers (Blank, 2012; Haley-Mize & Reeves, 2013; Hill & Launder, 2010; Sloat, Beswick, & Willms, 2007) have asserted that teaching phonics, learning through play, or teaching whole group lessons using curriculum units is the most effective way to teach emergent readers.

Perez and Dagan (2009) found that successful preschool education focuses on children's social, emotional, cognitive, linguistic, and physical domains.

The problem is there is no standardized curriculum or teaching method for preschool educators in the target school district. Preschool teachers receive books and activity notebooks with weekly thematic units, as well as some professional development, but a curriculum that provides reading instruction is unavailable across the target district. Local administrators give teachers the flexibility to use teaching methods based on their personal preference to teach reading including the two preschool teachers in the target school. Some teachers use direct instruction to teach literacy skills, while the others utilize an indirect approach. In research studies conducted by Callaghan and Madeline (2012) and Szecsi (2008) similar to the target school district, it was found that some early childhood educators do not have a curriculum to follow for teaching children to read and are required to develop their own Early Literacy curriculum. Clay (1991) provided research data to show that students who master CAP early have an easier time learning to read and write. Consequently, this study will use Clay's (1989) CAP assessment (Appendix A) to guide direct and indirect instruction. Concepts About Print will also provide intervention for students who are unfamiliar with book, word, letter, and directionality concepts.

Russell (2012) promoted the idea of encouraging literacy activities that are child-initiated during center or free-choice time. Research has identified print-rich classroom environments as essential to literacy development, observing that children are more likely to understand the reading process when they are involved in an atmosphere immersed

with various types of print (Grace et al., 2008). Other researchers, such as Perlman and Fletcher (2008), stress the necessity of direct teaching.

Purpose of Study

The purpose of this causal comparative study was to explore the relationship between CAP scores of preschool students who received direct CAP instruction and those who received indirect instruction through indirect reading and writing activities. The target school district where this study will take place does not currently have a curriculum for preschool teachers to use to provide reading instruction. One teacher at the target school uses direct instruction to teach reading, while the other uses an indirect approach. The purpose of this study was also to give local administrators and preschool teachers a model for teaching reading.

It was my intent to investigate if direct or indirect CAP instruction in preschools in the target school district was an effective method of teaching preschool students early literacy skills. While many methods present literacy to preschoolers (Helping Children Learn to Read, 2010), researchers sought to determine if direct or indirect instruction is more effective. A definitive answer would lead to a more successful learning experience for children, not only in this initial learning attempt, but also throughout their school careers.

A popular method of presenting the concepts of print to preschool children is to convey them indirectly by involving the children in literacy activities. Another is to teach the concepts directly, one at a time, with focused intention referred to in this study as CAP instruction. In this study, I compared the CAP scores of children in a preschool

class who received direct concepts of print with the CAP scores of children in a preschool class who received the concepts through story time and other literacy activities. The target school district was implementing Clay's (1993) Reading Recovery Program, which teaches at-risk first graders.

In this study, I investigated 40 students in two preschool classrooms using the CAP assessment (see Appendix A). There were two assessments: at the beginning of the school year and again after this research. One of the classes received direct instruction on CAP through small group lessons while the other class will received indirect CAP instruction through reading and writing activities. In this study, I addressed the question of the literacy achievement difference between students taught CAP directly and those who were taught indirectly through literacy activities in reading achievement.

Nature of Study

In this comparative study, I effectively worked with students and teachers in two preschool classes collecting data only as an observer. I investigated reading achievement differences between students taught print concepts directly versus those taught indirectly. In one class, students received direct CAP instruction for 30 minutes daily. The second class received instruction indirectly through literacy immersion. I compiled data on a pre and posttest of CAP text reading, compared the results of the CAP assessments of the two classes, and determined if students who were directly taught CAP skills showed significant reading gains over the students indirectly taught CAP skills.

In this research, I compared reading achievement score differences in two preschool classrooms, therefore quantitative analysis was appropriate versus qualitative.

According to Azarian (2011), comparative studies are useful if the researcher is trying to discover convergences and deviations. Harwell (2010) contended that an integral approach in quantitative studies is for the researcher to set aside his or her experiences, perceptions, and biases to ensure objectivity during the research and to the conclusions derived. Therefore, I clarified bias brought to this study, spent prolonged time in the field, and used peer debriefing to enhance the accuracy of the account in an effort to eliminate any threats to quality.

Research Questions and Hypotheses

The Domine assessment is a diagnostic tool administered to students' in grades K-3 to evaluate their reading progress. The assessment tests letter knowledge and requires kindergartners to identify the sounds they hear in words (Deford, 2002). Inadequate Dominie assessment test scores for kindergartners at the beginning of the school year in the target school district (2013) along with my own work as a preschool teacher for the past 9 years informed my observation that students were leaving preschool unprepared. The Dominie test scores at the local level were below the national average (Deford, 2002) which indicated that students were not adequately equipped and experienced school failure possibly due to a poor literacy foundation.

The hypothesis for this study was that if teachers' teach students print concepts directly, then they would score higher on the CAP assessment. If the hypothesis is correct, it is my goal that every preschool classroom implements the direct teaching model for teaching literacy development. This is particularly important because reading

difficulties correlate with problems in other subject areas (Sencibaugh, 2008; Windle & Miller, 2012).

The research question was:

Research Question

What are the achievement score differences, if any, between students who are directly taught concepts about print versus the students who are taught indirectly?

Null Hypothesis

The null hypothesis for this study was that there is no significant difference between the scores on the CAP assessment of preschool students taught print concepts directly and those who are not. The alternative hypothesis was there is a significance difference between the scores on the CAP assessment of preschool students taught print concepts directly and those who are not.

Variables

The independent variables in this study was direct and indirect CAP instruction. The test-retest design retested the 4-year-old participants after attending a preschool program for 2 weeks during the second semester of the 2014-2015 school year.

Conceptual Framework

The conceptual framework for this study was Clay's (1991) CAP theory and her in depth research and contributions to the educational field of emergent literacy. Clay emphasized that children develop their inner control with a continuing support by the teacher. This scaffolding provides the support the child needs to become an independent reader (Clay, 2005). Direct and indirect instruction of CAP enables a teacher to provide

support for students to begin reading. During the direct teaching model, the teacher demonstrates strategies allowing students gradually to take on tasks until they feel confident to perform them independently. The indirect teaching model allows the teacher to model while giving students the opportunity to integrate their new knowledge of strategies with their prior knowledge of how print works in a print rich environment. Teachers who use this model embed a wide range of reading and writing activities in the classroom setting.

Clay (2005) developed the CAP observation assessment (see Appendix A) for both nonreaders and readers that is widely used with young children in many countries (Tafa, 2009). The assessment exposes what students are attending to in print and locates their misconceptions of print. CAP has 24 items. The book has a picture on one page and text on another. The items on the CAP assessment include locating the front of the book, noticing that the print and not the picture tells the story, one-to-one matching, locating a letter, locating a word, locating the first and last letter of a word, noticing words and letters out of order, and recognizing some punctuation. The CAP assessment allows the teacher to discover which reading behaviors need teaching. Harlin and Lacina (2010) encourage adults to model these concepts for children and provide feedback on their progress through individual conferences.

Definition of Terms

This study investigated if students who were in a literate classroom learned print concepts without direct teaching and whether students who were taught CAP directly or

indirectly through literacy immersion advanced in reading. It is important to define the following terms used in education today:

Concepts About Print (CAP) Assessment: An assessment tool used to determine what a child is noticing about print (Clay, 1989). A copy of the CAP assessment is located in Appendix A.

CAP instruction: Literacy skills taught to beginning readers such as directional movement, one-to-one matching of spoken words to printed words, and book conventions. These skills include the 24 items on the CAP Assessment (Clay, 2000).

Emergent literacy: Language skills and knowledge that precede formal reading (Girard et al., 2013), these involve "reading and writing knowledge and behavior of children who are not yet conventionally literate" (Justice & Kaderavek, 2002, p. 208)

Literacy: The ability to read and write printed words at such a level as to meet daily living needs (Argyropoulos & Martos, 2006; Ellard et al., 2012).

Print concepts: The ability to locate the front and back of a book, notice that the word or print and not the picture tells the story, locate a letter, locate a word, locate the first and last letter of a word, notice when words and letters are out of order, one-to-one matching, directionality, and recognize sentence punctuation (Clay, 2005).

Print rich environment: An environment where books, schedules, and newspaper articles are available where children can invent, explore, question, make constructive errors, and seek assistance (Mester, 2008).

Scaffolding: Teacher support or cues given to children ranging from high to low that leads to student independence (Carrier et al., 2011; Clay, 2005).

Assumptions, Limitations, Scope, and Delimitations

Assumptions

In this research study, I assumed that both participating preschool teachers received professional development on teaching print concepts as well as on the administration (see Appendix B) and scoring of the CAP assessment (see Appendix A). The participating preschool teachers taught in a print rich classroom environment that consisted of a wide variety of print materials that provided daily language arts instruction where reading and writing opportunities were available. I also assumed that both preschool classrooms had students that were of similar ethnic and socioeconomic backgrounds. Finally, I assumed that the 2 weeks of intervention during this study would yield observable gains.

Limitations

The sample was limited to preschool teachers and students in a school district in South Carolina rather than teachers from a broader range of preschool early childhood programs. Therefore, the findings of this investigation did not generalize to other programs. Time constraint was another limitation. This research was limited to two weeks. School administrators arranged students in classrooms prior to this research, therefore, this study used convenience sampling. According to Creswell (2014), a convenience sample provides difficulty in randomly assigning participants and lacks the characteristics of a true experiment. However, in many experiments only a convenience sample is available due to naturally formed groups such as classroom assignments. All of

the limitations of conducting research without random assignment apply (Creswell, 2014).

In random assignment research studies, participants have an equal opportunity of selection to the intervention or comparison group. Although research studies without random assignment may be more feasible, they pose concerns of internal validity because the treatment and control groups may not be comparable at the baseline (Creswell, 2014). There is no way of truly knowing if any changes are a result of the intervention or from incomparable baselines. Because randomization is absent, some knowledge about the data can be approximated, but conclusions of casual relationships are difficult to determine due to a variety of extraneous and confounding variables that exist. This deficiency in randomization makes it harder to rule out confounding variables and introduces new threats in internal validity (Creswell, 2014).

Scope

The scope of this study was the teaching methods of reading instruction to a sample of preschool four-year-old students. The students came from a school district in South Carolina. They had various backgrounds and socioeconomic statuses. The data derived from this study determined differences in early reading achievement test scores that resulted from direct and indirect instruction. This study took place during the second semester of the 2014-2015 school year. The data collection took place for approximately two weeks. One class received direct CAP instruction daily, and the other class received CAP instruction indirectly through various reading and writing activities.

Delimitations

This research was confined to 40 preschool students arranged in two classrooms from an elementary school in South Carolina. The sample drew from the formation of classes at the beginning of the school year. The sample size consisted of approximately 10% of the preschool students in the school district and included 100% of the students at one particular school within the school district. Due to time restraints, the study did not broaden to include more classes.

Significance of Study

Knowledge Generation

District administrators did not provide preschool teachers on the local level with a curriculum or teaching strategy to teach reading. Many teachers and administrators have expressed concern about this issue. This study could provide a local model for assisting young children in becoming literate and address the issue of students unable to perform on grade level due to reading difficulties. The study was significant for the field of education because the researcher believes that providing students with a strong literacy foundation is essential to promoting academic achievement and closing the achievement gap. I focused on determining if students who were in a print-rich classroom environment learned print concepts without direct teaching. I examined which students achieved earlier advancements in reading: those who taught CAP directly or those taught indirectly through literacy immersion.

Research shows the benefits of a strong literacy foundation in young children and its contribution to later reading success (Chakraborty & Stone, 2009; Landry et al., 2006; Lonigan et al., 2005, 2006; McKenney & Voogt, 2012; Phillips & Lonigan, 2005). However, the target school district has not established an effective method to prepare young children for literacy. Literacy instruction varies in each preschool classroom as teachers utilize their own experience and knowledge. A study conducted by Girard et al. (2013) supported this observation and revealed that preschool teachers may be less supportive of emergent literacy development, in part, because of variations in their knowledge and expertise. Everything from phonics to a whole language approach has been attempted, but research has yet to yield substantive findings and no research on this topic has been conducted in the target school district.

Through personal observations and conversations with administrators and teachers as a classroom teacher in the target school district prior to this research, it was determined that many preschool teachers in the target school district have not specifically focused on preparing preschool children for literacy. Rather, they use a play-based approach that promotes social development. This study could assist with the development of a teaching strategy based on Clay's CAP as a model to build a strong literacy foundation in young children that could possibly promote later school success.

Professional Application

Many children are entering kindergarten without the prerequisite skills to respond to early reading instruction (Fahey & Forman, 2012). Students reaching higher grades and not being able to perform on grade level due to reading difficulties demonstrate this.

Providing a model for teaching reading to preschool students on the local level could change the statistics by increasing kindergartners Dominie scores. This will also address the concern some local administrators and preschool teachers of not having a curriculum that teaches reading. Findings from this research provided the researcher with knowledge to provide professional development to preschool teachers on the best method to assist preschool students in becoming literate. Research findings from this study could also lead to a teaching technique to teach reading for preschool teachers on the local level.

Social Change

This study has the potential for affecting social change by leading to the implementation of a CAP curriculum for preschool teachers and students in the target school district. Preschool teachers often struggle with finding the best most developmentally appropriate practices for teaching young readers in their classrooms. I compared two methods of teaching print concepts to preschool students that could give students the necessary tools to enable them to perform on grade level later in school. In turn, this could increase test scores and the graduation completion rate. Graduates would be more prepared to either further their education by going to college or technical school or enter the work force. In any case, it could prepare students to compete globally.

Many industrialized nations have been undergone substantial change to make their industries more globally competitive (Abadiano & Turner, 2006). There is a universal need to better prepare students for twenty-first century literacy demands (Reed, 2009). Caldwell and Finney (2011) proclaim that literacy is critical in increasing recruitment, improving retention, and reducing attrition in the armed forces. The recent

economic atmosphere provides complex political and social challenges that demand more advanced literacy skills than ever before, especially in the workplace (Murnane et al., 2012).

The resulting emerging globalized economy has placed the skills of current and future workers under scrutiny. In the United States, Canada, the United Kingdom, and Australia, a range of official reports and reviews on future workplace skills has reflected a sense of crisis due to a poorly skilled workforce that does not have the adequate literacy skills to adequately perform basic job skills (Castleton, 2002). A report released by the British government early in 1999 noted that country's high number of adults who are not functionally literate as "one of the reasons for relatively low productivity in our economy" (Castleton, 2002, p. 556). The depiction of workers' limited literacy skills, as a prevailing cause of poor economic performance among the nations has become a popular discourse. It reflects the need for literacy based curriculums and interventions beginning at the early childhood level.

High quality early childhood education and care has a transformative role: it provides learning experiences for children and enhances outcomes not just for individuals and families but also for communities and society. High-quality education and care thus has a role in redressing disadvantage as well as enhancing social justice and equity. Those working in early childhood education can position themselves as drivers of social change. A vision of a fairer society where all children and their families are able to share high quality experiences in their early years of life and into later life inspire early childhood educators.

Summary

In this study, I examined two different learning environments, focused on Clay's CAP, and its effects on learning to read independently. Two preschool classes in the same elementary school located in a South Carolina school district participated in the study for two weeks during the second semester of the 2014-2015 school year.

In one class, the teacher directly taught students print concepts for 30 minutes daily. The teacher divided the 30 minutes into three 10-minute mini lessons. Students were also engaged in a print rich classroom environment throughout the day. The other classroom consisted of students indirectly taught print concepts through reading and writing activities. I examined the relationship between students' reading achievement and knowledge of print concepts to determine there was a significant difference between the reading achievement of students were taught print concepts directly and those who were taught indirectly. Because there were gains in the reading achievement of students who received direct CAP instruction, students in the control group who did not receive direct CAP instruction will receive direct instruction. The research findings from this study developed homogeneous literacy instruction throughout all preschool classrooms in the target school district.

In Section 1, I introduced the reader to the problem this study investigated and will now transition to the second phase, a literature review. The literature review will involve research studies that support the statements made in this introduction. In Section 3, I present the methodology used during this study. Section 4 will include an analysis of

the data collected. Finally, Section, 5 will include a summary, conclusions, recommendations, and discussion of the data collected.

Section 2: Literature Review

Section 2 includes a review of research related to this study. Several theories of literacy acquisition of young children emerged from the review of literature. The search terms and phrases that I used were: *developmentally appropriate practices, emergent literacy, concepts about print, phonemic awareness, literacy immersion, pedagogical practices, direct teaching,* and *indirect teaching*. I searched library databases from the Educational Resources Information Center (ERIC), Education Research Complete, ProQuest Central, and Questia, periodicals from Childhood Education, Learning Disabilities, and Reading Teacher, and the World Wide Web. These yielded many studies that mentioned the following concepts: preschool, print concepts, concepts about print, beginning reading, and literacy development.

Early philosophers Piaget (1971), Vygotsky (1978), and Bruner (1996) provide early research and background knowledge of literacy acquisition of young children. There have been decades of debate over what skills to teach emergent readers and the how to properly teach method. In this literature review, I will focus on the teaching of concepts about print and phonemic awareness because an overwhelming number of researchers agree that these crucial skills require mastery for fluent reading. In the sections entitled Concepts About Print and Phonemic Awareness, I will discuss research studies and reviews that reflect the significance of teaching these skills. I will explore the relationship between teaching print concepts directly and reading achievement. In addition, I will explore the methods of literacy immersion and direct teaching.

Learning to read is imperative for later academic success and success in American society (Wei et al., 2011). Yet the Michigan government website that reports on national research showed (a) only 5% of students learn to read with no effort; (b) 20%-30% of students learn to read soon after formal instruction begins; and (c) at least 60% of students need early, individual, or small group intervention in order to learn to read. In addition, 75% of students who do not learn to read by age 9 will have reading difficulties through high school and 10% to 15% of those students will not complete high school (*Helping Children Learn to Read*, 2010).

Learning Theorists

Constructivism

Several modern philosophers have explored early learning and literacy acquisition. These theorists have contributed to the methods of educating young children, as this section will demonstrate. Constructivist theorists, Piaget (1971), Vygotsky (1962, 1978), and Bruner (1983, 1996) agreed that child-centered activities with scaffolded teacher support lead to positive early learning experiences. The child development theories of Piaget, Vygotsky, and Bruner built the foundations for understanding literacy acquisition (Christie & Roskos, 2013).

Piaget. Piaget was a Swiss scientist who developed theories about the cognitive development of children. He began proposing these theories when studying his three and children in elementary schools in Paris. Piaget's (1971) theorizes that children learn through constructing knowledge with their teacher's support in child-centered activities. Piaget supported a social atmosphere in the classroom and at home, where children are

allowed to play. Understanding the benefits of play can assist parents and teachers with maximizing a child's potential development (Logue & Harvey 2010; Myck-Wayne, 2010).

Although Piaget did not focus his studies on education, various educators have cited him. He was interested in how children naturally develop mathematical and scientific concepts (Wadsworth, 1978). According to Cartwright (2006), children must be developmentally ready to construct meaning from the new task of reading. Children construct this knowledge by assimilating new knowledge into their schema (Little & Box, 2011). According to Little and Box (2011), schemas develop from experiences. We organize and store information from these experiences in our long-term memory as background knowledge. In learning, schemas are building blocks that help us connect new information to our stored knowledge.

Children learn new concepts by experimenting with information until they reach a conclusion. For example, a child may know that *hair* is on his or her head, but when the teacher reads a book about a *hare* and points to a picture of a rabbit, the child must construct a new meaning for the word "hare." The child's correlation of this schema of hair to the picture and the context of the story to construct the knowledge of the hare as an animal is part of the educative process.

Vygotsky. Vygotsky's (1978) assertion that the teacher must create an environment in which a child's cognitive process can change is similar to Piaget's (1971). However, Vygotsky argued that it is impossible to understand a child's cognitive level without first considering their actual developmental and potential developmental levels.

The developmental level of students today emerges by using a combination of standardized tests or informal reading assessments. Vygotsky implied that if the learning environment included demonstrations, open-ended questions, and opportunities to construct knowledge, it would enhance a child's development.

Vygotsky (1962) labeled the beginning point of a child's learning as the zone of proximal development (ZPD). Within a child's ZPD he or she cannot learn independently. However, a child can learn with the correct amount of support. In the ZPD, a child uses what he or she knows as a springboard for new learning. Teachers who instruct students in their ZPD observe what students already know and work to build upon that knowledge. They scaffold their support. The teacher's role is to work with students while offering support when needed and allowing emerging literacy to develop. This constructivist theory shows how students assimilate or accommodate new literacy knowledge.

Bruner. Bruner's (1983, 1996) psycholinguistic theory maintains that children improve their linguistic performance as they are exposed to language skills (Bruner, Goodnow, & Austin, 1956). Children construct new knowledge and assimilate this new knowledge into their schema. Bruner et al. (1956) declared that teachers should provide opportunities for children to discover new concepts and encourage active dialogue between students. Bruner (1983, 1996) discovered that the school environment strongly affects a child's intellectual development. Participating in a social environment is imperative for children to acquire sophisticated linguistic performance and he stressed the importance of implementing early interventions for students who are identified as at-risk.

Froebel. Froebel (1826) had a different perspective on a child's intellectual development. He believed that play provided the means for a child's intellectual, social, emotional, and physical development. Froebel maintained that the education of a child begins at birth and that parents and teachers play a critical role in assisting children with acquiring the intellectual stimulation that play offers. Play is a child's work.

The philosophies of Piaget (1971), Vygotsky (1962, 1978), Bruner (1983, 1996), and Froebel (1826) have all contributed to early childhood education today. This study will take into account Vygotsky's ZPD when planning direct and indirect print concept lessons. The preschool classrooms in this study will provide social, interactive, student-centered learning environments consistent with the theories of Piaget and Bruner. The preschool classrooms in this study will also be academically developmentally appropriate, providing intellectually stimulating opportunities for play, as suggested by Froebel.

Emergent Literacy

Clay introduced the term *emergent literacy* to describe the behaviors seen in young children when they use books and writing materials to imitate reading and writing activities (as cited in Wayne et al., 2007). Emergent literacy acknowledges children's active role in their literacy learning. According to this approach, literacy learning is progressive from birth (McKenney & Voogt, 2012).

According to Mclachlan et al. (2006), children become literate through compounding their new knowledge, adjusting their old knowledge to the new paradigm, and exploring the environment. Children enter school with different levels of background

knowledge about reading (Wayne et al., 2007) and learning to read varies considerably within the spectrum (Snow & Juel, 2005). Clay (1991) stressed the importance of the teacher's duty to build on what children know to extend their knowledge and understanding of literacy. This idea of building on a child's prior knowledge directly relates to the constructivist theory of learning. Theorists refer to preschool classrooms as emergent literate environments because the classrooms incorporate into the daily routine opportunities for observing, listening, story time, reading, and writing.

Whole Language

Beginning in the 1970s, researchers and educators began incorporating the constructivist theories of Piaget (1971), Vygotsky (1978), and Froebel (1826) into newly labeled whole language and language experience classrooms. The whole language or top-down approach perceives literacy as a process of active meaning making (Beatty & Care, 2009). From this perspective, reading is a combination of visual and perceptual skills that include sight vocabulary, word knowledge, and comprehension. According to Schwarzer (2009), whole language encourages the teacher and learner to look at language as a whole and not in segments. The whole language theory maintains that learning to read is a natural process that indirectly teaches reading as a series of separate skills and concepts (Wilson & Colmar, 2008).

The whole language theory adopts a holistic approach and encourages children to learn to read by reading (Wilson & Colmar, 2008). Students gain meaning of words as they engaged in reading. When implemented effectively, whole language allows students the opportunity to learn various components of language such as phonemic awareness

and phonics in meaningful contexts. It can increase the student's awareness of the purpose and process of reading, build positive attitudes towards literature and literacy, develop strategies for interpreting text at a higher level, enrich vocabulary, and build general knowledge.

Snow and Juel (2005) found that the process of learning to read varies considerably amongst children. Ryder, Tunmer, and Greaney (2008) argued that for children who possess high levels of knowledge about literacy, and who have a background with a variety of skills and experiences at the entry of school, the processes involved in learning to read are typically learner dependent, with children largely only relying on introduction to new concepts. The whole language approach to beginning reading instruction, with a major emphasis on reading of trade books and writing of text, is likely to be more effective for these children than code-emphasis approaches. In contrast, for children who possess low levels of essential reading-related skills and experiences at the outset of formal reading instruction, the learning processes are typically highly environment-dependent, with the children requiring a fairly structured and teacher-supported introduction to reading. These children usually benefit more from reading instruction that involves explicit and systematic instruction in orthographic patterns and word identification strategies (Ryder et al., 2008 p. 364).

Critics of the whole language approach contend that the principle is inadequate for several reasons (Moores, 2009). The principle fails to acknowledge that oral language acquisition and formal literacy learning are two distinct processes and that whole language emphasis on acquisition has led to implicit rather than explicit teaching

practices. The whole language approach has much to offer, but without mastery of the alphabetic code to a level of automaticity, and eventually fluency, meaningful reading processes are unattainable (Wilson & Colmar, 2008).

Direct teaching of literacy skills is the opposite of whole language approach. According to Donlevy (2010), most students benefit from direct instruction because they often model the teacher and develop an automatic flexible repertoire of strategies that will enable them to become skilled readers.

Research Studies

Lyon. Theorists and educators research emergent literacy and reading difficulties in their quest to develop best practices for teaching beginning reading. In 1983, Dr. Reid Lyon conducted research studies of 3-year-old children from various ethnic and language backgrounds to find patterns of reading difficulties that could predict reading problems (as cited in Boulton, 2007). He assessed the children on reading, language, syntax, and phonemic awareness three times a year for 5-10 years. When he discovered reading difficulties, he reviewed assessments from the end of the year were to find patterns. The results proved the phonemic awareness was an essential reading skill, but not the only skill necessary for reading achievement. The results further highlighted the need to reach phonemic awareness along with word patterns, fluency, comprehension strategies, and print concepts (Boulton, 2007). The section titled Phonemic Awareness in this study will further investigate the importance of phonemic awareness.

According to Leistyna (2007), Lyon was President George W. Bush's educational advisor when Bush was governor of Texas and later headed the National Reading Panel

(NRP). The United States Congress authorized the panel was authorized of reading and research specialists, college of education representatives, school administrators, and parents. Lyon (1994) and the NRP reported that previous research studies regarding emergent literacy often found inconsistent results. They later found that variations in the samples caused the conflicting results. In an effort to solve this problem, the NRP began reviewing research according to the following criteria: (a) the studies must use the scientific model, (b) they must be long-term studies, and (c) they must use a sampling procedure to include all population subgroups.

The NRP conducted an exhaustive literature review of thousands of studies focused on reading instruction for children in kindergarten through third grade (Scheffel et al., 2012). As a result, the following best practice recommendations were made: (a) teach phonemic awareness in kindergarten, (b) teach phonics explicitly and systematically, (c) model stretching the sounds in words, (d) use decodable texts for reading instruction, (e) read authentic, non-controlled texts, and (f) model and teach comprehension and decoding strategies (Lyon, Alexander, & Yaffe, 1997). According to the NRP (as cited in Barclay, 2009; Sheffel, 2012), effective reading programs addressed the following five essential components: (a) phonemic awareness, (b) phonics, (c) fluency, (d) vocabulary, and (e) comprehension.

Although Lyon (1994) and the NRP conducted this research more than 20 years ago, in April 2000, the NRP released its research-based findings in two reports and a video entitled, Teaching Children to Read. The findings remain important for understanding reading difficulties and current research studies on literacy development

continue to cite them. While the NRP's suggestions may work in most classrooms for most students, Allington (2005) opposed mandates by the federal government on teaching practices or programs and strongly opposes a one-size-fits-all program for teaching emergent readers. Allington's research studied effective reading teachers and found that these teachers experimented with multiple approaches, styles, and programs that met the needs of the students in their classroom at that particular time.

Cunningham, Hall, and Defee, (1998) shared Allington's (2005) views of effective teachers. Cunningham developed The Four Blocks method to teach emergent literacy. The Four Blocks model includes daily guided reading, independent reading, writing, and word work. He and others tested the effectiveness of this model in a first grade class in two schools during the 1990-1991 school year (Hall, Prevatte, & Cunningham, 1995). They then expanded the study to include second and then third grade over the next two years. Results based on reading assessments of students who experienced the Four Blocks framework for at least two years proved that 83% of students in one school and 97% of students in the other school read at or above grade level. Elementary schools across the United States continue to use The Four Blocks framework, in whole and in part. According to Cunningham, Hall, and Defee (1998) and Cunningham, Hall, and Sigmon (1999), the Four Blocks framework is helping large numbers of students achieve grade-level or above reading success.

The research results of Diamond and Onwuegbuzie (2000) on the effects of The Four Blocks framework vastly contradicted the findings of Hall et al. (1995). Their study, which spanned over one school year, involved 127 first through fifth grade students.

They found significantly lower reading achievement scores for fifth graders and lower than average scores on posttests of all students. Diamond and Onwuegbuzie pointed out that although there has been widespread use of the Four Blocks framework across the United States, there has been little experimental research on this approach. This present study will add to the experimental research of the best methods to teach emergent readers.

Grace et al. (2008) contended improvement in the overall literacy environment is the prerequisite for supporting young children's emergent literacy abilities. The major goal of their three year study was to assess the effects of ongoing professional development as a support system for preschool teachers and paraprofessionals who were attempting to create high-quality, literacy-rich classroom environments.

In a quantitative study, Mclachlan et al. (2006) found that children develop literacy through exposure to oral stimuli such as talking and hearing someone read to them. The study also established that literacy development is facilitated by exposure to written stimuli. It went on to explain that children learn about literacy through both access to an enriched literacy environment and mediation by an enthusiastic teacher. When exposed to literacy opportunities, children requested books be read to them, had favorite books, read to themselves, asked questions while they were being read to, sang nursery rhymes and played language games, recognized and used letters of the alphabet for writing and spelling, attempted to write letters and words, and recognized signs and labels. This study, which promoted direct instruction, involved 72 childcare centers and 22 kindergarten classrooms.

Mclachlan et al (2006) also investigated 107 teachers' knowledge of how to promote effectively literacy development in the early years. These teachers considered their role in children's literacy development to be supportive, to extend children's learning and provide literacy-rich, stimulating classroom environments. They practiced an indirect teaching model. The teachers believed their role was to provide the resources as well as encourage and maintain children's interest in reading.

In a study conducted by Lee and Ginsburg (2007), teachers stressed the importance of preparing preschool classroom environments filled with literacy materials. They maintained that children should choose their own activities. The classroom environment needs to be saturated with literacy materials such as alphabet magnets, puzzles, paper, pencils, and storybooks that will help develop preschoolers' literacy skills. Teachers in this study also stressed the importance of building literacy in all play areas of the classroom, such as the block and science area, by providing these materials and making labels (Lee & Ginsburg, 2007).

Many researchers assert that literacy development begins at birth (McKenney & Voogt, 2012; Barratt-Pugh & Allen, 2011; McKenzie, 2009; McKenzie & Davidson, 2007). This statement directly relates to Clay's view of emergent literacy. McKenzie (2009) went on to claim that print rich environments encourage growth in emergent literacy and that the environment should be organized into centers or educational learning areas. This framework uses suggestions from Froebel's (1826) play philosophy as well as suggestions from Piaget (1971), Vygotsky (1962, 1978), and Bruner's (1983, 1996) social constructivist philosophies.

Researchers continue to debate over the most effective teaching practices and classroom modeling that will overcome reading difficulties (Duke & Block, 2012; Knight-McKenna, 2009; Clay, 1991). Ziolkowska (2007) contended that beginning instruction for struggling readers as soon as difficulties emerge is beneficial and essential to preventing early school failure. Vaughn et al. (2009) conducted a study showing the effectiveness of interventions for at-risk readers. In this study, students with reading difficulties who were low responders to a first-grade reading intervention entered a more intensive CAP-like intervention that involved more small group and individual instruction on oral reading fluency, word attack, passage comprehension, and word identification. According to Vaughn et al. (2009), a majority of students in their study responded well to early reading interventions and made appropriate progress. Even many of the lower responders who received ongoing intensive intervention made statistically significant progress on the Woodcock Reading Mastery Test, a test that have shown correlations and validations with the CAP assessment (Tafa, 2009).

Lukin & Estraviz (2010) stated that reading difficulties and language problems may be related and that Speech-Language Pathologists (SLPs) who often work with students with reading problems should be aware of this. Lukin & Estraviz (2010) offered suggestions on how SLPs can coordinate their services with teachers and parents to maximize literacy growth for students. The collaboration of teachers, parents, and SLPs will ensure student progress.

Concepts About Print

While researchers discuss the importance of teaching print concepts, few research studies focus on concepts about print and their relationship to beginning reading. Evangelou and Sylva (2007) conducted a study, known as the Peers Early Education Partnership (PEEP). Working with a sample of 149 preschool students, it investigated the effects of early interventions on children's development from age 3 to 5 when the children entered school against students who did not attend a program. Students were engaged in concepts about print activities through circle time, talking time, and book sharing activities throughout the school day. Center time allowed students free choice play to implement concepts about print activities through games and book exploration. Clay's (1993) CAP test was used as a pre and post assessment.

The results of the PEEP study (Evangelou & Sylva, 2007) found that children who received the intervention had significantly higher CAP scores than children in the comparison group. The importance of concepts about print correlated to later reading ability. According to Tizard et al. (1988), CAP scores at the age of 4 were strong predictors of reading achievement at ages 7 and 11.

Brassell (2004) conducted another research study on the effects of teaching print concepts. This research studied 84 four-year-old preschool students who were enrolled in two classrooms over the 2-year period of 1998-1999 and 1999-2000. These students attended a privately funded, inner-city daycare facility that predominately served students from low socio-economic backgrounds. The purpose of this study was to examine the

effects of various literacy interventions. The study used Clay's (1993) CAP test as the pre and posttest.

During this study, both classrooms implemented a literacy program. This program included daily read-alouds, shared reading with Big Books, group story writing, language experience stories, modeling of book handling, and book making. Students were also encouraged to explore concepts about print during free choice time by participating in centers that allowed opportunities for letter and word games, punctuation games, journal drawing and writing, letter and word matching, and independent reading. Teachers also encouraged the use of books from classroom libraries (Brassell, 2004).

The interventions set in place by the Brassell (2004) study resulted in significant improvements on the CAP test from pretests in November to posttests in June, when students made the most gains on print-direction concepts and letter-word concepts. For example, only 21 of the preschoolers in the study were able to begin to read in the top left corner of the page, continuing from left to right, and top to bottom on the pretest while 59 students demonstrated correct directional behaviors on the posttest.

In another study conducted by May et al. (2013), found that students who received interventions using the Reading Recovery program outperformed students who had not by 20 percentile points on the Iowa Test of Basic Skills. It is projected that students receiving further intervention will increase from 133 to 144 points from the start to finish of their intervention program. These gains are equivalent to an additional 1.9 months of learning and a growth rate that is 38 percent greater than the national average growth rate for beginning first graders (May et al., 2013).

Phonemic Awareness

Phonemic awareness is defined as "the ability to notice, think about and work with the individual sounds in spoken words" (Isakson et al., 2011, p. 374). Significant research spanning over the past several decades have focused on the relevance of phonological awareness and early literacy development in young children (Phillips, Clancy-Menchetti, & Lonigan, 2008). Walsh (2009) contends that phonemic awareness skills are critical to early reading and a lack of phonemic awareness skills may lead to early and long-term reading difficulties.

Ball and Blackman (1991) and Mann (1993) conducted research studies to determine if teaching phonemic awareness to kindergarteners affects early reading skills. Both studies involved 90 to 100 students and incorporated the direct teaching of phonemic awareness skills to the experimental groups. Ball and Blackman's study also investigated direct teaching of letters and letter sounds to the experimental and control groups. Ball and Blackman concluded that teaching phonemic awareness skills along with letter and letter sound recognition significantly improved phonemic awareness. Mann's study discovered that phonemic awareness predicts between 30%-40% of a student's future reading ability.

Traditionally students did not learn and practice letter names and sounds until kindergarten, but the No Child Left Behind act and Common Core State Standards has forced educators to begin teaching essential fundamental skills in preschool in an effort to prepare students for testing (Jennings & Rentner, 2006). Snow et al. (as cited in Barone & Morrow, 2003) stated that by the time children enter kindergarten they should be able to

recognize and name uppercase and lowercase letters and possess phonemic awareness skills. Barone and Morrow (2003) stated that upon entering first grade, most children should understand the differences between sounds, letters, words, and sentences. Preschool teachers, then, need to ensure that their students receive direct instruction in letter name knowledge, phonemic awareness, and letter-sound associations (Barone & Morrow, 2003). Ball and Blackman (1991) and Mann (1993) have proven that effectively manipulating and blending sounds in phonemic awareness lessons and activities with concepts about print are powerful additions to literacy immersion classrooms.

A long-term study conducted by Vellutino et al. (2006) found that direct instruction could be effective for at-risk emergent readers. This study, which focused on kindergarten students, set out to identify causes of and solutions for reading difficulties. The study randomly divided students into two groups. The first group was the project treatment group. This group met twice a week with a trained project staff for 30-minute sessions. The project staff focused on emergent literacy skills of print concepts, print awareness, letter identification, phonemic awareness, letter-sound relationships, sight words, shared and guided reading, and listening to and reading stories. The second group was the school-based group and received no intervention.

The results of the Vellutino et al. (2006) study showed that the project treatment students performed significantly better than the school-based group on phoneme segmentation, letter identification, spelling, and letter-sound decoding at the end of kindergarten. Marginal or less than significant results was recorded on concepts about print, rhyming, alliteration, and phoneme blending.

The Vellutino et al. (2006) study continued as students moved to the first grade. Students were assessed at the beginning of first grade on letter/sound knowledge, word identification, letter/sound decoding. Students were also assessed using a standardized reading mastery assessment. Based on assessment results, students were labeled as "no longer at risk" (NLAR), "normal readers" (NR), or "poor readers" (PR) (Vellutino et al., 2006, p. 160).

The study randomly assigned the PR students to three groups. The first two groups, the project treatment groups, met daily and received individual instruction from a project staff member. The third group, the school-based group, received small group intervention instruction in the regular classroom. The project staff in the project treatment group focused on lessons in word identification, meaning, and comprehension. The school-based group received instruction by the classroom teacher in guided reading groups. The NLAR and NR students received instruction in the regular classroom through guided reading groups.

At the end of first grade, the PR students in the project treatment groups again performed significantly better on a CAP-like assessment than the school-based group on the posttest of reading mastery, letter/sound knowledge, word identification, and letter/sound decoding. The NLAR students consistently performed at or above average. The NR students performed significantly higher in all groups. This study concluded that early and long-term reading difficulties could be prevented with early detection and early, intense intervention by reading specialists. The results of this study and the Torgesen et

al. (1997) study suggested that direct instruction by a reading specialist would improve reading capabilities of emergent readers, which is relevant to this current study.

This section has revealed the importance of teaching phonemic awareness skills to emergent readers. It has also revealed that phonemic awareness skills should not be taught in isolation but in conjunction with letter/sound relationships, concepts about print, vocabulary development, storybook reading and retelling, and direct and indirect phonics instruction. All of these components together work in a balanced literacy classroom. .

Literacy Immersion in a Balanced Classroom

Literacy immersion in a balanced literacy classroom includes the implementation of various reading and writing opportunities such as writing workshops, read alouds, shared reading, guided reading, and independent reading (Fountas & Pinnell, 1996). According to Thompson (2008) and Brown et al. (2012), children who learn literacy through immersion are surrounded by adults who demonstrate the use of language in meaningful ways. Children should be immersed in written language daily with adults who demonstrate and model behavior with the expectation that the child will become literate (Brown et al., 2012). Thompson (2008) further acknowledged that children would become engaged with literacy when it is used in authentic environments.

Parsons and Harrington (2009) maintained that a balanced approach to literacy would help students become thoughtfully literate, confident, motivated, and able write for their own purposes. Students will also embrace challenges; work collaboratively to accomplish shared goals, and ask important questions while evaluating what they read. Parsons and Harrington (2009) contended that a truly balanced approach to literacy

instruction combines explicit skill and strategy instruction with challenging authentic opportunities to read and write. Morrow's (2007) book on preschool literacy discovered that high quality preschool programs should offer rich learning experiences with emphasis on social interaction in a literacy immersion classroom. Morrow pushed for balanced, child-centered exploration environments along with structured, direct teaching activities.

Clay (2005) stressed that teachers cannot teach reading independence. Instead, the teacher's role is to facilitate a learning environment easy enough for students that it will enable active participation. This will gradually allow students to take over tasks. Teachers must scaffold their assistance by modeling tasks while offering high levels of support when needed, and less support when appropriate. Stanovich (2000) defined this behavior as the "Matthew Effect." In reading, the "Matthew Effect" refers to the notion that over time, better readers become even better, and poorer readers become relatively poorer (Morgan, Farkas, & Hibel, 2008). The "Matthew Effect" occurs due to continued exposure and interaction with text or a lack of these literacy experiences (Donalson & Halsey, 2007; Holmes et. al, 2012). According to the National Assessment of Educational Progress (2009), the "Matthew Effect" explains the reading achievement gap between White, Black, and Hispanic students.

Classroom libraries provide positive literacy experiences for children and are a necessity in developing thriving, engaged readers (Young & Moss, 2006). Young and Moss (2006) contended that students who have ready access to books in their classrooms have better attitudes about reading, reading achievement, and comprehension than their

peers with less access to books in the classroom. Students are also more likely to spend time reading when they are in classrooms with adequate classroom libraries. They also stressed that all classroom libraries must be filled with interesting, high-quality fiction and non-fiction books at each student's reading level.

In a study conducted by de Haan et al. (2014), children benefited from teacher managed literacy activities. The teacher-managed activities in this study accelerated children's development showing gains in both literacy and language. The preschool classrooms included materials and activities such as (a) read alouds, (b) an abundance of quality fiction and nonfiction books, (c) big books, (d) patterned and predictable books, (e) play-based instruction, (f) interactive writing, and (e) inventive spelling. Clay (2005) agreed with de Haan et al. and contended that students learn print concepts, story language, and story structure through immersion in a print-rich environment including shared reading, predictable books, word games, rhyming activities, poetry, integration of reading and writing, and story reading.

McGee and Morrow (2005) believed in literacy immersion and emergent literacy through a playful and enriching environment that utilized both whole group and small group lessons. These lessons should incorporate teaching concepts about print, alphabet letters and sounds, phonological and phonemic awareness, sight words, listening comprehension, and writing. Morrow's (2007) book stated that total literacy development is gained through social interaction involving literacy immersion. The book offered suggestions for parents and teachers on fostering emergent literacy. Morrow also pushed

for integrating literacy learning into all content areas, which is a component of a balanced literacy classroom.

Research infers that literacy immersion in a balanced literacy classroom has is an effective delivery model for teaching beginning reading skills (Allington & Cunningham, 1999; Fountas & Pinnell, 1996; Snow et al., 1998; Young & Moss, 2006). Studies described in this section overwhelmingly chose print-rich environments and a balanced approach to teaching over direct teaching. This comparison will be part of the focus of this present study.

The preschool teachers in this study will use several measures to measure student print and reading skill knowledge. These measures will include anecdotal records, teacher-made checklists, running records, CAP, and writing portfolios. All of these measures will provide information about students' understanding and lack thereof. Teachers will use this information to assist in planning whole group, small group, and individualized lessons. Incorporating each of these teaching styles into the school day will lead to balanced literacy instruction in a literacy immersion classroom.

In summary, this section on literacy immersion in a balanced literacy classroom provided research data on the positive effects of best teaching practices for teaching the skills of concepts about print and phonemic awareness. It highlighted the importance of an abundance of reading and writing opportunities using quality materials in a social atmosphere. The next section will focus on direct teaching as an alternative to literacy immersion, as well as a positive addition to literacy immersion in a balanced literacy classroom.

Direct Instruction

A number of research studies have examined literacy immersion in balanced literacy classrooms and compared reading achievement through immersion to reading achievement through direct instruction (Elkind, 1987; Kim & Axelrod, 2005; Lalley & Miller, 2007; Meyer et al., 1983; Roberts & Wilson, 2006; Sylva et al., 1999). Direct instruction is "a highly structured teaching plan often associated with Hunter's Mastery Teaching model. It emphasizes teacher direction and student teacher interaction" (Lalley & Miller, 2007, p. 68).

This section will review studies on the use of direct instruction as an instructional method. Direct instruction originated in the 1960s in a highly successful preschool at the University of Illinois (Roberts & Wilson, 2006). Direct instruction has since become a more fully developed teaching system and has evolved into a billion dollar experiment to determine effective instructional practices beginning in the early grades. According to Kim and Axelrod (2005), direct instruction is the most researched teaching strategy and the one strategy that has improved student achievement. These experiments and research have proven direct instruction is effective throughout the country (Lalley & Miller, 2007).

At a school in Houston, Texas, where 80% of students qualify for free or reduced lunch and 88% participated in standardized testing, students who received direct instruction consistently outperformed students in affluent suburbs, in some cases by as much as one or two grade levels (Roberts & Wilson, 2006). Research studies have concluded that students who begin receiving direct instruction in kindergarten were

reading on grade level by the end of third grade. Receiving direct instruction is crucial in the early grades and accelerates the pace of students' pre-reading and reading skills in kindergarten and first grade (Roberts & Wilson, 2006).

A longitudinal study conducted by Meyer et al. (1983) researched the long-term effects of direct instruction. Students in Meyer's study attended inner-city schools in New York and were followed through high school to ascertain the long-term effects of direct instruction. Student who received direct instruction graduated from high school, applied to college, and were accepted. Significantly, more control students stayed back or dropped out of school. Students who were in the direct instruction group also scored significantly higher on ninth grade reading and math tests (Meyer et al., 1983).

Another study conducted by Sylva et al. (1999) examined the effects of immersion plus direct instruction on students' text reading levels at the beginning of kindergarten and first grade. The study divided students from 12 schools into two groups. The first group, the literacy program group, used a whole language approach in a very structured environment. This group received a high level of direct teacher instruction in print concepts and phonemic awareness. The second group, the control group, did not receive any treatment. At the end of kindergarten, the literacy program group showed an average of two months gain over the control group on a text reading assessment. At the end of first grade, the literacy program group showed an average gain of four months over the control group on a text reading assessment. The results of this study prove that direct teaching of print concepts can improve student achievement (Sylva et al., 1999).

Elkind (1987) opposed direct teaching of literacy skills and deemed it inappropriate without first considering the developmental level and learning style of the child. Elkind warned that academics had no place in the preschool classroom and believed that young children learn best through socializing, book sharing, and daily experiences rather than formalized instruction. His studies began in preschool classrooms before full-day kindergarten became common in the late 1980s. Elkind has written several articles against formal reading instruction for young children throughout the 1980s, 1990s, and 2000s (Elkind, 1989, 1995, 1997, 2001a, 2001b, 2004). Through his observations, Elkind found that many early childhood classrooms were too academic and did not incorporate enough hands-on activities. Elkind supported the philosophies of Froebel (1826), Montessori (1912), Piaget (1971), and Vygotsky (1962, 1978) in which student learning was centered on social interactions, developmentally appropriate activities, and hands-on experiences.

Direct instruction is a component of a balanced literacy classroom that provides an effective model for teaching reading skills such as phonemic awareness, concepts about print, and vocabulary. As an early intervention, direct instruction has positive effects on reading achievement, understanding print concepts, phonemic awareness, and vocabulary. This present research study of concepts about print will attempt to replicate the results of studies by Roberts and Wilson (2006), Meyer et al. (1983) and Sylva et al. (1999). One preschool classroom will receive daily concepts about print instruction and the other will not. The expected results from this present study are that direct teaching of print concepts will have a positive significant effect on CAP assessment scores.

Literature Related to Method

Researchers have the choice of conducting qualitative, quantitative, or mixed methods studies. When testing the impact of treatment, intervention, or teaching method, Creswell (2014) suggested using standard methods of the experimental quantitative approach including participants, materials, procedures, and measures. The present study will use convenience sampling since both preschool classes will already be formed before the study begins.

This current study will use the CAP assessment (Appendix A) for measurement. This study will also utilize the pretest-posttest control-group design where both groups will be administered pre and posttests, but only the intervention group will receive the treatment, which is the direct instruction of print concepts.

Relationships and positive correlations exist in quantitative studies between emergent literacy and concepts about print, phonemic awareness, literacy immersion in balanced literacy classrooms, and direct teaching. Quantitative research provides statistical evidence that phenomena exist, or that a phenomenon has a correlation or causal relationship to another phenomenon. According to Cooper et al. (2007) and Creswell (2014), qualitative studies used to conduct research in education rely on the researcher's interpretation of the data collected. Creswell (2014) contended that qualitative research studies open the door to further research studies and the primary intent is to find trends or themes in the data collected.

Mixed method research design is relatively new in the field of education (Harwell, 2010; Tashakkori & Teddlie, 2003). In mixed methods studies, both

quantitative and qualitative data are collected. According to Creswell (2014), mixed method research provides both statistical and narrative data analysis. A mixed method approach provides insights not possible when only qualitative or quantitative data are collected (Harwell, 2010). Plano Clark (2010) attribute an increase in the number of mixed method studies to increased funding, however mixed methods in educational research is a work in progress (Alise & Teddle, 2010; Creswell, 2009). Although mixed method studies are gaining popularity, there remains disagreement amongst researchers on exactly what constitutes a mixed method study (Morse, 2010).

All three research method designs are appropriate for educational research. However, Creswell (2003) stated, "the choice of which approach to use is based on the research problem, personal experiences, and the audiences for whom one seeks to write" (p. 23). The purpose of this study is to test the relationship between direct and indirect teaching of concepts about print of students' achievement on the CAP assessment. Data from this quantitative study research design can reveal relationships, correlations, and cause and effect results (Cooper et al. 2007; Creswell 2014; Harwell, 2010).

Summary

I examined the relationship between direct and indirect teaching of print concepts and reading achievement. In Section 2, I addressed the research base for teaching CAP skills to emergent readers. I also examined the role of CAP in a literacy immersion balanced literacy classroom. Studies showed relationships and non-relationships between direct teaching and reading achievement.

In Section 3, I will describe the methodology of this comparative study. I incorporated many of the suggestions and findings from previous research including storybook reading, literacy immersion, phonemic awareness, and balanced literacy activities in the preschool classes where teachers will use CAP directly and indirectly.

Section 3: Research Method

In this study, I examined the effects of teaching print concepts directly and indirectly on the reading achievement of preschool students. This comparative study included two classes of preschool students from the same elementary school located in rural South Carolina. I implemented a test-retest approach to determine if either group made any significant improvements on the CAP assessment. The study lasted 2 weeks. This study conducted pretests at the beginning of the school year and posttests after two weeks of direct and indirect CAP instruction. In this section, I will further explain the CAP assessment and the statistical analyses of the data from the pre and posttests. Appendix A includes a copy of the assessment and Appendix B includes a copy of the administration form, which provides instructions on how to administer the CAP Assessment.

Research Design and Approach

In this research, I used the comparative research design. School administrators arranged students' in classes prior to this study; therefore, random assignment did not occur. I conducted this research using the postpositive approach. According to Creswell (2014), in postpositive research, a researcher begins with a theory, collects data that either supports or refutes the theory, and then makes necessary revisions before conducting additional tests.

The research question that I investigated in this study was: What are the achievement score differences, if any, between students who are directly taught concepts about print versus the students taught indirectly? The null hypothesis for this study was:

There is no significant difference in the scores on the CAP assessment of preschool students taught print concepts directly. The alternative hypothesis was: There is a significant difference in the scores on the CAP assessment of preschool students taught print concepts directly.

An analysis of covariance (ANCOVA) with the pre-test as the covariate was used in this study. The quantitative data from this study was measured using quantifiable variables and statistics to show relationships. Because this present study involved comparing two groups of student assessment results on the CAP, this method proved to be the best method for data analysis.

The independent variable in this study was method of instruction with two types: direct and indirect CAP instruction. The difference between the pre- and post-test scores on the CAP assessment were the dependent variables. The correlation between the pre- and post-test analyzed the covariance. Inferential statistics assisted in analyzing the two samples of students from one rural South Carolina elementary school and then generalized about the population of preschool students in the school. The generalizations arose from the results of an independent-measures t statistic used for hypothesis testing. Descriptive statistics also characterized the data collected. There were several threats to internal validity for this study such as nonrandom assignment (Creswell, 2014), history, maturation, and the regression effect (Campbell & Stanley, 1963).

According to Creswell (2014), nonrandom assignment poses a threat to internal validity because the groups cannot be compared at the baseline. There is no way of truly knowing if any changes are a result of the intervention or from incomparable baselines.

Because randomization was absent, some knowledge about the data was approximated, but conclusions of casual relationships were difficult to determine due to a variety of extraneous and confounding variables that existed. This deficiency in randomization made it harder to rule out confounding variables and introduced new threats in internal validity (Creswell, 2014). Student classroom assignments took place before the beginning of this study, which made nonrandom assignment the first threat to internal validity for this study.

The second threat to internal validity for this study was history. Campbell and Stanley (1963) describe history as the events, other than the experimental treatments, that influence the results. When pretests and posttests are used in research studies, many events that can occur between the times the tests are administered could cause the difference. According to Campbell and Stanley (1963), the longer the time lapse, the more of a threat it becomes to internal validity.

Maturation was the next threat to internal validity for this study. Campbell and Stanley (1963), described maturation as biological or psychological changes that occur within the subjects during the study. Examples of these changes are students have grown older, more tired, more bored, etc. These factors represent the cumulative effects of the learning process and environmental pressures of the total daily experience, which would occur even if an intervention were not introduced (Campbell & Stanley, 1963).

The final threat to internal validity for this study was the regression effect. Scores of subjects that are very high or very low tend to regress towards the mean during retesting. According to Campbell and Stanley (1963), students taking an achievement test

for the second time usually do better than those who are taking the test for the first time. This occurs without any form of intervention (Campbell & Stanley, 1963).

Setting and Sample

As previously mentioned, the research population was preschool students in a rural elementary school in South Carolina. Including the two classrooms of study participants, the study school had 218 students enrolled for the 2014-2015 school year. Table 1 shows the demographics for the school and the sample classrooms where the study took place.

Table 1

Demographics of the School and Samples Involved in the Study

	School	Sample A	Sample B
Enrollment	218	20	20
Free/Reduced Meals	96%	95%	100%
African American	97%	100%	100%
Asian American	0%	0%	0%
Hispanic	1%	0%	0%
White	2%	0%	0%

Note. Adapted from the *PowerSchool Database*. by PowerSchool, 2014, Rancho Cordova, CA. Copyright 2014 by PowerSchool.

The research sample consisted of 40 students from two heterogeneously mixed preschool classrooms from a rural elementary school in South Carolina. The mean age of

the students participating in this study is 4.4 or 4 years and 4 months. The variance is 0.202 and the standard deviation is 0.45. Students in both classes came from similar socioeconomic backgrounds and all are African American. Eighty percent of the students' parents in this study have a high school diploma or GED. Of those 80%, 5% have completed a 4-year college and 10% have completed certification through job training programs.

I used convenience sampling because school administrators assigned students of the participating teachers into classes prior to this study. The study chose preschool teachers because preschool teachers in the target school district received several professional development training sessions on the importance of teaching print concepts. Although teaching styles vary, both preschool classrooms teach print concepts through literacy immersion in a balanced literacy classroom.

Treatment

The two teachers and teacher assistants volunteered to participate in this study. The teacher in Classroom A is African-American, had 12 years of teaching experience, and has completed an Education Specialist degree program. The teacher and teacher assistant in Classroom A immersed the students in reading and writing activities. The students were taught print concepts such as locating the front of a book, noticing that the print and not the picture tells the story, locating a letter, locating a word, locating the first and last letter of a word, noticing words and letters out of order, and recognizing some punctuation indirectly through demonstrations, modeling, and exploration activities with books, charts, games, and magnetic letters.

The teacher in Classroom B is also African-American, had 8 years of teaching experience, and was currently enrolled in an Education Specialist degree program. In Classroom B, the teacher and teacher assistant directly taught one print concept to students for 30 minutes each day. Students were informed of the concept they were being taught. The teacher and teacher assistant modeled the concept and provided practice for students. The teacher and the teacher assistant reviewed each concept with the students at least three times during the study in order to provide students sufficient practice time.

Instrumentation and Materials

The instrument used for data collection was the Concepts About Print assessment (see Appendix A). Clay (2005) developed this instrument to observe what children notice about the written language in their environments. Tafa (2009) proved the CAP test has been a reliable observation tool for assessing young children's knowledge about print. Reliability coefficients using the Cronbach Alpha have ranged from 0.73 to 0.95 (Clay, 2005). The test effectively measures the changes of behaviors over time (Clay, 1985, 2005). Reading Recovery teachers have used the CAP assessment as one of the six parts of The Observation Survey (Clay, 1993). The CAP assessment has shown correlations and validations with standardized, norm-referenced tests such as the Gates-MacGinitie Reading Test and the Woodcock Reading Mastery Test (Tafa, 2009).

Research suggests the CAP Assessment is valid (Clay, 2013). Holliman et al. (2010) examined the correlations between the CAP Assessment, the Primary Reading Test, and the British Spelling Test Series for a sample of 125 5 to 7 year-old children at the end of the 2008-2009 school year. The correlations were above .50 and were as high

as .80 between the Duncan Word test and the British Spelling Test Series. D'Agostino (2012) examined correlations between the CAP assessment and the Slosson Oral Reading Test. Correlations from this examination varied from 0.23 to 0.87 with most in the 0.50 range indicating good convergence with the Slosson. Predictive validity of the CAP assessment has also been examined. Scores on two standardized Word Reading tests, Schonell R1 and Fieldhouse Reading Test at 7 and 9 years were correlated with literacy behavior measures at age 6. The correlations indicate related progress 1 and 2 years later (Clay, 2013).

The CAP assessment (see Appendix A) has 24 items. The assessment took about 5-10 minutes to administer and was given to one student at a time. The assessment consisted of a book read to the student by the teacher where the student was asked to help the teacher. The book has a picture on one page and text on the opposite page. The teacher asked the student questions about the words, letters, and pictures in the story. The score on the CAP assessment (see Appendix A) was recorded as the number of correct answers out of 24. Appendix B offers the standardized teacher script (Clay, 2005) of the CAP assessment.

Clay (1979) believed that in order for a child to be a successful reader, he or she must control all the concepts tested by this task. This comparative study tested the theory to determine if students learned concepts more quickly through direct instruction sooner those who received indirect teaching.

Data Analysis

I used inferential statistics to study two samples of students from one rural South Carolina elementary school. Data collected from the CAP assessment reflected the number of correct answers given by the student out of a possible score of 24. I used descriptive statistics to summarize, organize, and simplify the data collected. The mean, standard deviation, and the standard error mean scores on the pre- and post-tests are included.

The null hypothesis in this study was: There is no significant difference in the scores on the CAP assessment of preschool students taught print concepts directly. The alternative hypothesis was: There is a significant difference in the scores on the CAP assessment of preschool students taught print concepts directly compared to those taught concepts indirectly.

The researched conducted an analysis of covariance (ANCOVA) with the pre-test as the covariate in this study. By using an ANCOVA, I reduced within-group error variance and eliminated variables other than the experimental manipulation that would have affected the outcome (Field, 2013). An ANCOVA also assisted in accurately determining the effect of the independent variable and removed any biases from variables that would influence study results (Field, 2013).

Protection of Rights

I effectively worked with students and teachers in two preschool classes collecting data, but only an observer. During this process, I informed teachers of the study and provided them with consent forms giving them the option to participate in the

research study or to opt out. I compared the teaching strategies of two preschool teachers. One teacher used a direct approach to teaching reading, while the other teacher used an indirect approach. This research protected instructional time and did not interfere with any regular classroom routines or procedures. No published data related to this research will identify participants by name. I will share the SPSS data analysis of CAP scores with participating teachers. I will also share any generalizations gained from this study with district and school administrators. Data collected for this study will be shredded and deleted after five years.

Summary

This comparative study implemented the test re-test approach to determine if any group made significant improvements on the CAP assessment. Section 3 described the research design and approach of this study. The researcher described the setting and sample as well as the treatment in each classroom. The instrument used for data collection was the CAP assessment. Section 3 detailed the data analysis process, which used inferential statistics. Finally, Section 3 discussed protection of rights of participants. Section 4 will discuss the results of this study.

Section 4: Results

The purpose of this causal comparative study was to explore the relationship between CAP scores of preschool students who received direct CAP instruction and those who received indirect instruction through indirect reading and writing activities. Twenty students in Classroom A received indirect CAP instruction from their teacher through classroom reading and writing activities. Twenty students in Classroom B received direct CAP instruction. All students were administered the CAP assessment at the beginning of the school year and again at the middle of the year which took place immediately after this study.

Data Analysis

Research Question 1

The research question for this study was to determine the achievement score differences, if any, between students who are directly taught concepts about print versus the students who are taught indirectly. Table 2 displays the means, standard deviations, and standard errors for test results by instruction method. The mean for direct instruction for beginning of the year testing (BTOT) was 12.0 with a standard deviation (SD) of 4.8 and a standard error (SE) of 1.1. The mean for indirect instruction for BTOT was 8.4 with a SD of 3.6 and a SE of 0.8. The mean for direct instruction for middle of the year (MTOT) was 20.0 with a SD of 3.4 and a SE of 0.7. The mean for indirect instruction for MTOT was 12.9 with a SD of 4.4 and a SE of 1.0.

Table 2

Means, Standard Deviations, and Standard Errors for Test Results by Instruction Method

Test	Instruction Method	Mean	Standard deviation	Standard error
BTOT				
	Direct	12.0	4.8	1.1
	Indirect	8.4	3.6	0.8
MTOT				
	Direct	20.0	3.4	0.7
	Indirect	12.9	4.4	1.0

This study results were calculated using the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk tests. The purpose of these tests was to compare scores in the sample to a normally distributed set of scores with the same mean and standard deviation. If the test has a probability (p) greater than 0.5 ($p \geq 0.5$), the distribution of sample is not significantly different from a normal distribution. This indicates the likelihood of a normal distribution. If, however, the test is significant ($p \leq 0.5$) then the distribution in question is significantly different from a normal distribution, which indicates the probability is non-normal (Fields, 2013). Table 3 illustrates in this study $p = 0.20$ for both indirect and direct instruction during BTOT as well as MTOT. All four tests were nonsignificant indicating the data is normal.

Table 3

Test of Normality

Instruction	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BTOT						
Direct	0.2	20	0.2*	1.0	20	0.4
	0.1	20	0.2*	0.9	20	0.1
Indirect						
MTOT						
Direct	0.2	20	0.2*	1.0	20	0.6
	0.1	20	0.2*	1.0	20	0.6
Indirect						

Note. * = This is a lower bound of the true significance.

a. Lilliefors Significance Correction.

This study also included the Levene test. According to Fields (2013), Levene's test tests the null hypothesis that the variances in different groups are equal. If $p < 0.05$ then a conclusion that the null hypothesis is incorrect and that the variances are significantly different. Therefore, the assumption of homogeneity of variances violation. If, however, Levene's test is non-significant ($p \geq 0.05$) then the variances are roughly equal and the assumption is justifiable. Table 4 illustrates the significance values based on the mean as 0.3 for BTOT and 0.2 for MTOT. Both tests were non-significant which supports the null hypothesis that there is no significant difference between the scores on the CAP assessment of preschool students taught print concepts directly and those who are not.

Table 4

Test of Homogeneity of Variance

Test	Levene Statistic	df1	df2	Sig.
BTOT				
Based on mean	1.3	1	38.0	0.3
Based on median	1.3	1	38.0	0.3
MTOT				
Based on mean	1.5	1	38.0	0.2
Based on median	1.3	1	38.0	0.3

The primary statistical analysis was analysis of the covariance, with the BTOT as the covariate. The dependent variable was MTOT. According to Fields (2013), performing an ANCOVA will reduce within-group error variance. By explaining some of the unexplained variance using BTOT as the covariate, this reduced the error variance, which allowed the researcher to assess more accurately the effect of the independent variable. The researcher explained some of the unexplained variance using BTOT as the covariate, which reduced the error variance and allowed more accurate assess of the effect of the independent variable.

Performing an ANCOVA also removed bias of variables other than experimental manipulation that could have possibly affected the outcome variable. Beginning of the year testing (BTOT) accounted for a significant amount of variance. Performing the ANCOVA removed the significance. The final scores were analyzed free of the influence from BTOT therefore the data in Table 5 shows a true significant relationship between instruction and CAP scores ($F(1,37) = 23.0$, $p < .001$). This demonstrates a very significant difference between direct and indirect instruction. The direct mean is greater

than the indirect mean, so I concluded that higher scores on the CAP assessment were a result of directly teaching print concepts. The instructional method is significant after the significant effects of the covariate BTOT were removed. Based on the results it can be concluded that direct instruction is better than indirect instruction, thus the null hypothesis is rejected.

Table 5

Tests of Between-Subjects Effects

Source	Type III sum of squares	df	Mean square	*F*	Sig.
Corrected model	801.4[a]	2	400.7	49.4	0.0
Intercept	522.4	1	522.4	64.4	0.0
BTOT	297.3	1	297.3	36.6	0.0
Instruction	186.9	1	186.9	23.0	0.0
Error	300.2	37	8.1		
Total	11860.0	40			
Corrected total	1101.6	39			

a. R Squared = 0.727 (Adjusted R Squared = 0.713).

Summary

I conducted these analyses to determine if there was a significant difference in CAP scores of students who received direct instruction versus those taught indirectly. The data indicated that there was a significant difference in the average CAP scores between the two groups. The average CAP scores of the students who received direct instruction were higher than the CAP scores of students who received indirect instruction. According to these data, I can reject the null hypothesis that there is no significant difference between the scores on the CAP assessment of preschool students taught print concepts directly and those who are not. Based on the results it can be concluded that

teaching print concepts directly is more effective than teaching indirectly. In Section 5, I will discuss the findings and significance of the research. Recommendations for actions and future studies will also be discussed.

Section 5: Summary, Conclusion, and Recommendations

Learning to read can be a challenging task for many students (Melekoglu, 2011). The purpose of this study was to explore the relationship between CAP scores of preschool students who received direct CAP instruction and those who received indirect instruction through indirect reading and writing activities. A previous researcher correlated knowledge and understanding of print concepts to later reading ability (Evangelou & Sylva, 2007). Tizard et al. (1988) found that CAP scores at the age of 4 were strong predictors of reading achievement at ages 7 and 11. Other researchers indicated that directly teaching literacy skills integrated with reading and writing activities in a print-rich environment positively influenced reading achievement (Brassell, 2004; May et al. 2013). In the present study, I sought to explore the achievement score differences of students taught print concepts directly versus those taught indirectly. I chose two similar preschools from a rural school for the present study.

The researcher collected pre- and post-test CAP assessment data. Administration of the pretest took place during the first 45 days of school and the administration of the posttest took place immediately after this study. During the 2 weeks of this study, the researcher observed daily lessons conducted by both teachers. The teacher and teacher assistant in Classroom A indirectly taught by immersing students in reading and writing activities. The students were taught print concepts such as locating the front of a book, noticing that the print and not the picture tells the story, locating a letter, locating a word, locating the first and last letter of a word, noticing words and letters out of order, and

recognizing some punctuation indirectly through demonstrations, modeling, and exploration activities with books, charts, games, and magnetic letters.

In Classroom B, the teacher and teacher assistant directly taught one print concept to students for 30 minutes each day. Students were informed of the concept they were being taught. The teacher and teacher assistant modeled the concept and provided practice for students. The teacher and the teacher assistant reviewed each concept with the students at least three times during the study in order to provide students sufficient practice time.

Statistical Package for the Social Science (SPSS) was the statistical program that I used to analyze the data of this research. I analyzed results using the Kolmogorov-Smirnov (K-S), Shapiro-Wilk, and Levene tests to establish the assumptions necessary for analysis of covariance (ANCOVA). Analyses were conducted to test the null hypothesis that there were achievement score differences between students who taught print concepts directly versus those taught indirectly.

Interpretation of Findings

Research Question

The null hypothesis was that there was not a significant difference between the CAP scores of students who were taught print concepts directly versus those who were taught indirectly. The statistics illustrated that there was a statistically significant positive difference in the average CAP scores between students in Classroom A and Classroom B. The average MTOT score of students in Classroom A, who received indirect instruction, was 12.9. The average MTOT score of students in Classroom B who received direct

instruction was 20.0. Based on these results after statistical removal of the pretest differences, the null hypothesis was rejected. It can be concluded that directly teaching print concepts is more effective than teaching indirectly. These results support the findings of previous research studies (Clay, 1989; Brassell, 2004; & May et al., 2013) that support directly teaching print concepts to emergent readers.

Conclusions

I concluded that directly teaching print concepts yields faster knowledge and understanding of literacy concepts than indirectly teaching. Although both groups improved literacy acquisition, results from this study showed that there was a more significant positive difference in the average CAP assessment scores of students taught print concepts directly. After further reviewing the CAP assessment results, it was evident that students who received direct instruction had a greater understanding of the meaning of a comma, the meaning of quotation marks, and the differentiation between one and two words. By studying the results, I concluded that students taught concepts directly had a better understanding of how print works. As a former preschool teacher, the researcher is a strong believer that a strong understanding of print concepts of emergent readers is critical in later reading success.

Significance of Study

The conceptual framework for this study was Clay's (1991) CAP theory and her in depth research and contributions to the educational field of emergent literacy. Clay emphasized that children develop their inner control with a continuing support by the teacher. This scaffolding provides the support the child needs to become an independent

reader (Clay, 2005). Direct and indirect instruction of CAP enables a teacher to provide support for students to begin reading. During the direct teaching model, the teacher demonstrates strategies allowing students gradually to take on tasks until they feel confident to perform them independently. The indirect teaching model allows the teacher to model while giving students the opportunity to integrate their new knowledge of strategies with their prior knowledge of how print works in a print rich environment. Clay (1991) also developed the CAP assessment used in this study.

According to Naz et al. (2012) teachers are responsible for the growth and building of students. Teachers also play a vital role in preparing future generations (Balyer & Ozcan, 2014). Hoaglund et al. (2014) suggest teachers use Professional Learning Communities (PLC's) to collaborate, analyze current levels of student achievement, set student achievement goals, and then share and create lessons and strategies to improve student performance. The results of this study will provide administrators and preschool teachers on the local level with the most effective method in teaching preschool students literacy. The researcher shared results with preschool teachers through this collaborative process. I believe it is critical to inform teachers of the literacy achievement gained through direct teaching of print concepts. In an effort to spread the word, the researcher is planning to share study results with all preschool providers who participate in the state funded 4K program through South Carolina First Steps in a session at the 2015 annual 4K Conference Academy.

Recommendations for Action

In this study, I focused on the achievement score differences of students who received direct CAP instruction against students who received indirect CAP instruction. This study took place in two preschool classrooms at one elementary school during the second semester of the 2014-2015 school year. I recommend that a larger study to include more classes take place to include a larger population. This will allow more schools and teachers to participate. Due to time restraints, this research was limited to 2 weeks. The researcher suggests conducting a study that expands at least 1 school year is critical to provide more in-depth analysis of the impact of directly teaching print concepts.

Concluding Statement

The purpose of this quantitative study was to explore the achievement score differences of students who received direct CAP instruction versus students who received indirect CAP instruction. Twenty students in Classroom A were taught print concepts indirectly through reading and writing activities and twenty students in Classroom B were taught print concepts directly one at a time. The researcher collected data from the beginning of the year and middle of the year CAP assessment results. The study results indicated that students taught print concepts directly scored significantly higher on the CAP assessment than students taught print concepts indirectly. These results suggest that directly focusing on print concepts will build the foundation of literacy acquisition to promote lifelong readers

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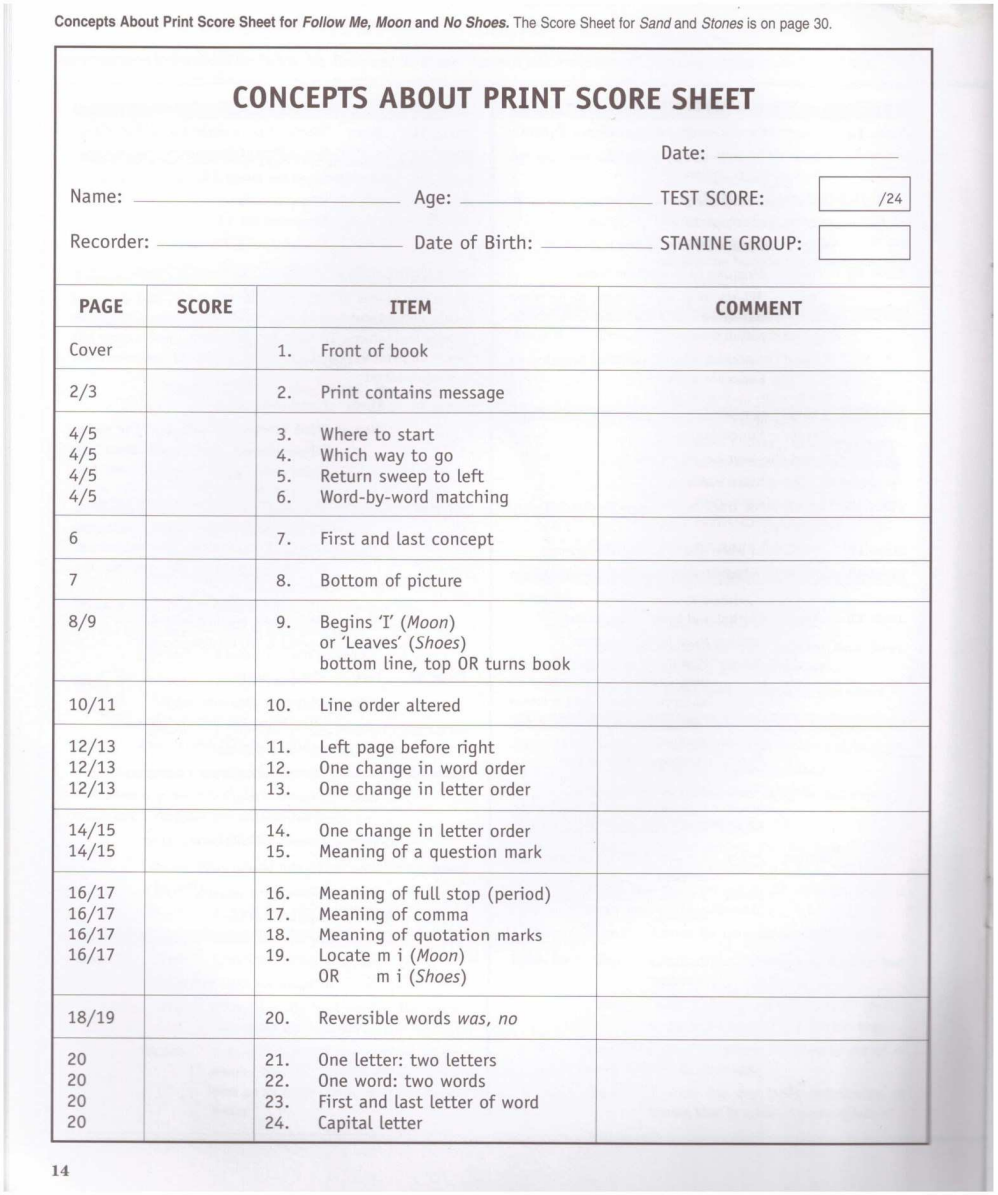
Appendix A: CAP Scoring Sheet



Concepts About Print Score Sheet for *Follow Me, Moon* and *No Shoes*. The Score Sheet for *Sand* and *Stones* is on page 30.

CONCEPTS ABOUT PRINT SCORE SHEET

Date: _____

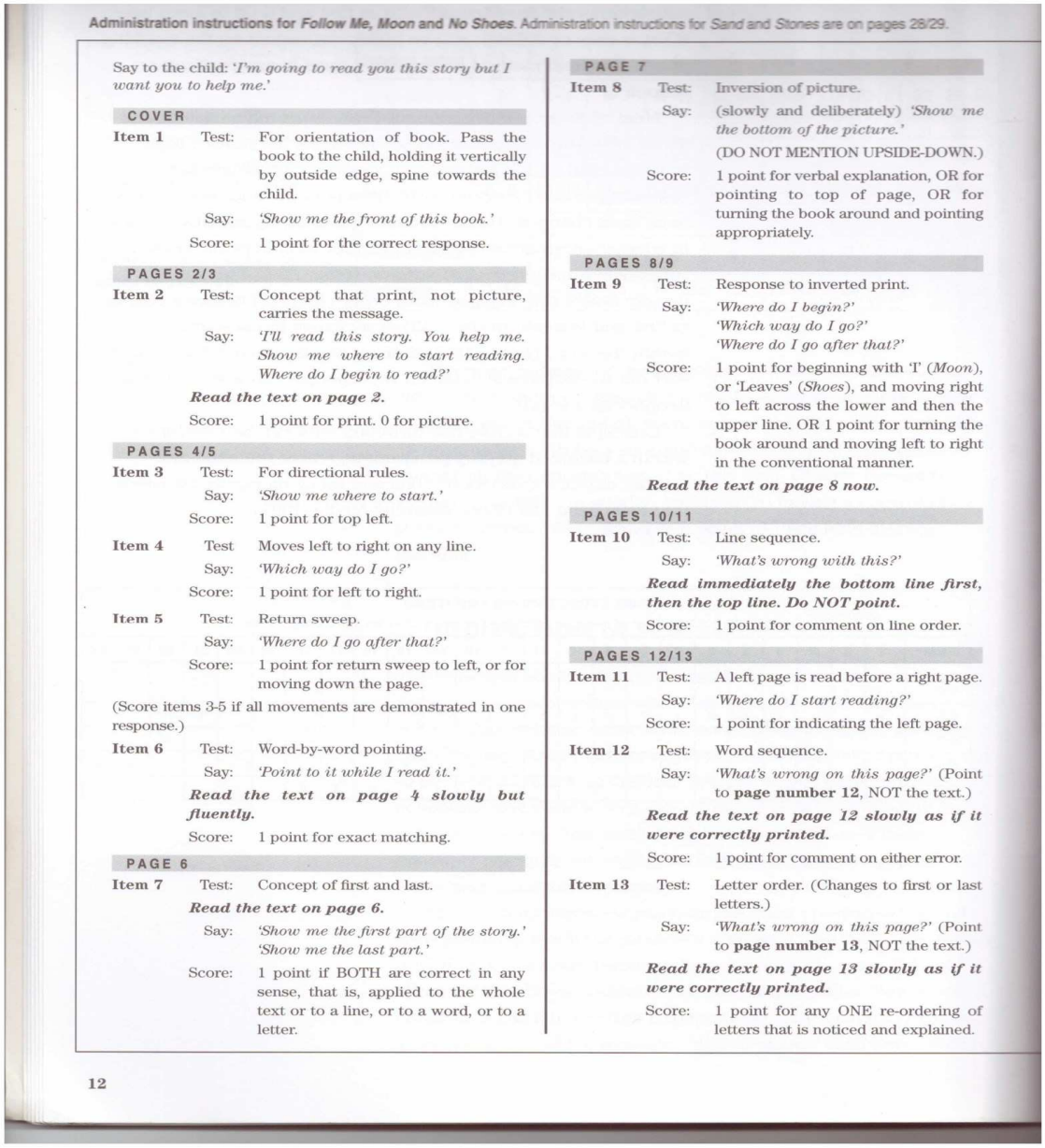
Name: _____ Age: _____ TEST SCORE: /24

Recorder: _____ Date of Birth: _____ STANINE GROUP:

PAGE	SCORE	ITEM	COMMENT
Cover		1. Front of book	
2/3		2. Print contains message	
4/5 4/5 4/5 4/5		3. Where to start 4. Which way to go 5. Return sweep to left 6. Word-by-word matching	
6		7. First and last concept	
7		8. Bottom of picture	
8/9		9. Begins 'I' (*Moon*) or 'Leaves' (*Shoes*) bottom line, top OR turns book	
10/11		10. Line order altered	
12/13 12/13 12/13		11. Left page before right 12. One change in word order 13. One change in letter order	
14/15 14/15		14. One change in letter order 15. Meaning of a question mark	
16/17 16/17 16/17 16/17		16. Meaning of full stop (period) 17. Meaning of comma 18. Meaning of quotation marks 19. Locate m i (*Moon*) OR m i (*Shoes*)	
18/19		20. Reversible words *was*, *no*	
20 20 20 20		21. One letter: two letters 22. One word: two words 23. First and last letter of word 24. Capital letter	

14

Appendix B: CAP Administration Instructions



Administration instructions for *Follow Me, Moon* and *No Shoes*. Administration instructions for *Sand* and *Stones* are on pages 28/29.

Say to the child: '*I'm going to read you this story but I want you to help me.*'

COVER

Item 1 Test: For orientation of book. Pass the book to the child, holding it vertically by outside edge, spine towards the child.
Say: '*Show me the front of this book.*'
Score: 1 point for the correct response.

PAGES 2/3

Item 2 Test: Concept that print, not picture, carries the message.
Say: '*I'll read this story. You help me. Show me where to start reading. Where do I begin to read?*'
Read the text on page 2.
Score: 1 point for print. 0 for picture.

PAGES 4/5

Item 3 Test: For directional rules.
Say: '*Show me where to start.*'
Score: 1 point for top left.

Item 4 Test: Moves left to right on any line.
Say: '*Which way do I go?*'
Score: 1 point for left to right.

Item 5 Test: Return sweep.
Say: '*Where do I go after that?*'
Score: 1 point for return sweep to left, or for moving down the page.

(Score items 3-5 if all movements are demonstrated in one response.)

Item 6 Test: Word-by-word pointing.
Say: '*Point to it while I read it.*'
Read the text on page 4 slowly but fluently.
Score: 1 point for exact matching.

PAGE 6

Item 7 Test: Concept of first and last.
Read the text on page 6.
Say: '*Show me the first part of the story.*' '*Show me the last part.*'
Score: 1 point if BOTH are correct in any sense, that is, applied to the whole text or to a line, or to a word, or to a letter.

PAGE 7

Item 8 Test: Inversion of picture.
Say: (slowly and deliberately) '*Show me the bottom of the picture.*'
(DO NOT MENTION UPSIDE-DOWN.)
Score: 1 point for verbal explanation, OR for pointing to top of page, OR for turning the book around and pointing appropriately.

PAGES 8/9

Item 9 Test: Response to inverted print.
Say: '*Where do I begin?*'
'*Which way do I go?*'
'*Where do I go after that?*'
Score: 1 point for beginning with 'I' (*Moon*), or 'Leaves' (*Shoes*), and moving right to left across the lower and then the upper line. OR 1 point for turning the book around and moving left to right in the conventional manner.
Read the text on page 8 now.

PAGES 10/11

Item 10 Test: Line sequence.
Say: '*What's wrong with this?*'
Read immediately the bottom line first, then the top line. Do NOT point.
Score: 1 point for comment on line order.

PAGES 12/13

Item 11 Test: A left page is read before a right page.
Say: '*Where do I start reading?*'
Score: 1 point for indicating the left page.

Item 12 Test: Word sequence.
Say: '*What's wrong on this page?*' (Point to **page number 12**, NOT the text.)
Read the text on page 12 slowly as if it were correctly printed.
Score: 1 point for comment on either error.

Item 13 Test: Letter order. (Changes to first or last letters.)
Say: '*What's wrong on this page?*' (Point to **page number 13**, NOT the text.)
Read the text on page 13 slowly as if it were correctly printed.
Score: 1 point for any ONE re-ordering of letters that is noticed and explained.

12

PAGES 14/15

Item 14 Test: Re-ordering of letters within a word.

Say: *'What's wrong with the writing on this page?'*

Read the text on page 14 slowly as if it were correctly printed.

Score: 1 point for ONE error noticed.

Item 15 Test: Meaning of a question mark.

Say: *'What's this for?'* (Point to or trace the question mark with a finger or pencil.)

Score: 1 point for explanation of function or name.

PAGES 16/17

Test: Punctuation.

Read the text on page 16.

Say: *'What's this for?'*

Item 16 Point to or trace with a pencil, the full stop (period).

Item 17 Point to or trace with a pencil, the comma.

Item 18 Point to or trace with a pencil, the quotation marks.

Item 19 Test: Capital and lower case letters.

Say: *'Find a little letter like this.'*

Moon: Point to capital P and demonstrate by pointing to an upper case P and a lower case p if the child does not succeed.

Shoes: As above for W and w.

Say: *'Find a little letter like this.'*

Moon: Point to capital M, I in turn.

Shoes: Point to capital M, I in turn.

Score: *Moon*: 1 point if BOTH m and i are located.

Shoes: 1 point if BOTH m and i are located.

PAGES 18/19

Item 20 Test: Words that contain the same letters in a different order.

Read the text on page 18.

Say: *'Show me* was.'
'Show me no.'

Score: 1 point for BOTH correct.

PAGE 20

Have two pieces of light card (13 cm x 5 cm) that the child can hold and slide easily over the line of text to block out words and letters. To start, lay the cards on the page but leave all print exposed. Open the cards out between each question asked.

Item 21 Test: Letter concepts

Say: *'This story says* (***Moon***) *"The moon followed me home"* [*or* (***Shoes***) *"My shoes were by the river"*]. *I want you to push the cards across the story like this until all you can see is* (deliberately with stress) *just one letter.'* (Demonstrate the movement of the cards but do not do the exercise.)

Say: *'Now show me two letters.'*

Score: 1 point if BOTH are correct.

Item 22 Test: Word concept.

Say: *'Show me just one word.'*
'Now show me two words.'

Score: 1 point if BOTH are correct.

Item 23 Test: First and last letter concepts.

Say: *'Show me the first letter of a word.'*
'Show me the last letter of a word.'

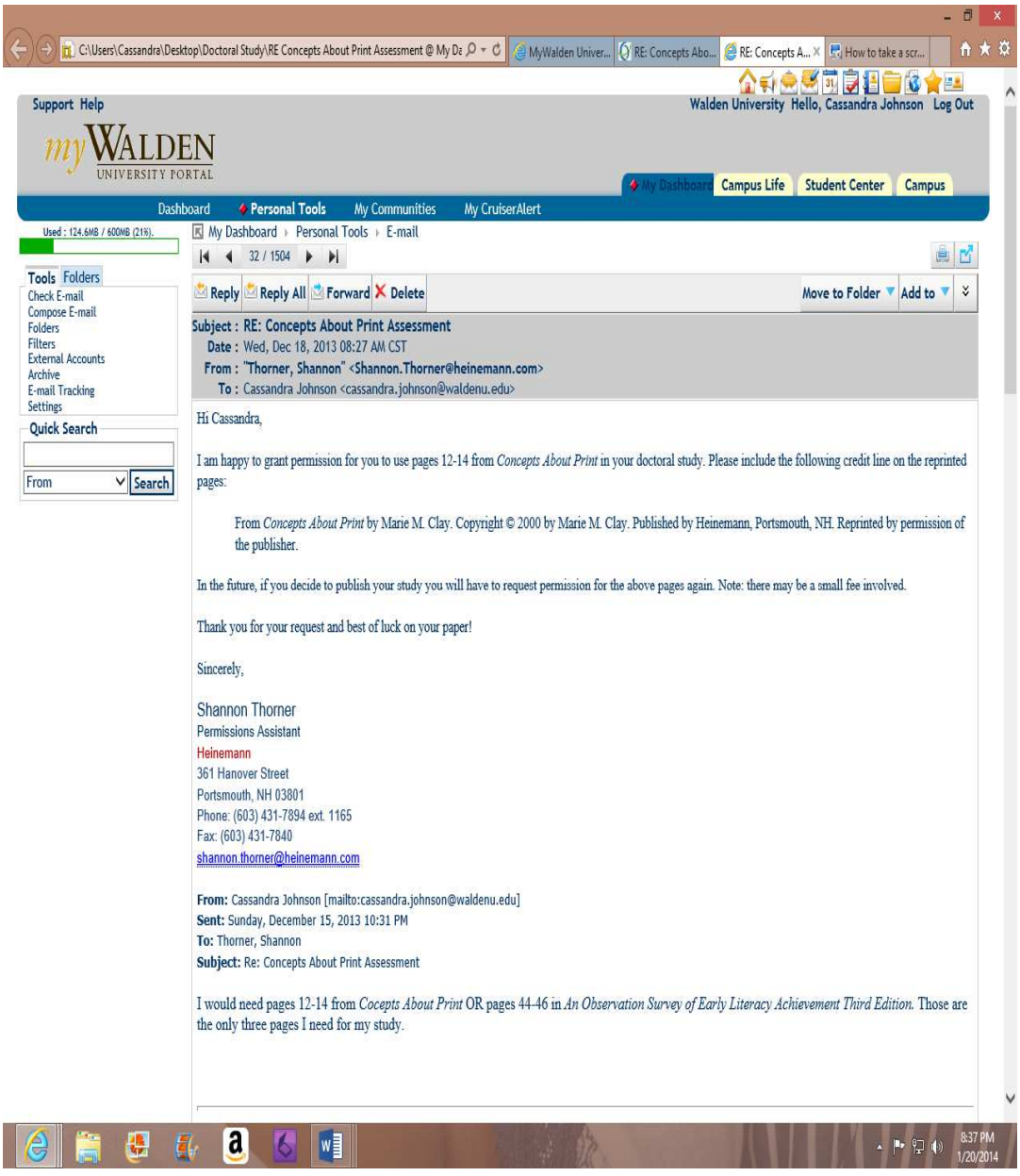
Score: 1 point if BOTH are correct.

Item 24 Test: Capital letter concepts.

Say: *'Show me a capital letter.'*

Score: 1 point if correct.

Appendix C: Permission from Publisher to Reprint CAP



Support Help

Walden University Hello, Cassandra Johnson Log Out

myWALDEN UNIVERSITY PORTAL

My Dashboard | Campus Life | Student Center | Campus

Dashboard | Personal Tools | My Communities | My CruiserAlert

Used : 124.6MB / 600MB (21%).

Tools Folders

Check E-mail
Compose E-mail
Folders
Filters
External Accounts
Archive
E-mail Tracking
Settings

Quick Search

From Search

My Dashboard ▸ Personal Tools ▸ E-mail

32 / 1504

Reply | Reply All | Forward | Delete | Move to Folder | Add to

Subject : RE: Concepts About Print Assessment
Date : Wed, Dec 18, 2013 08:27 AM CST
From : "Thorner, Shannon" <Shannon.Thorner@heinemann.com>
To : Cassandra Johnson <cassandra.johnson@waldenu.edu>

Hi Cassandra,

I am happy to grant permission for you to use pages 12-14 from *Concepts About Print* in your doctoral study. Please include the following credit line on the reprinted pages:

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Thank you for your request and best of luck on your paper!

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Shannon Thorner
Permissions Assistant
Heinemann
361 Hanover Street
Portsmouth, NH 03801
Phone: (603) 431-7894 ext. 1165
Fax: (603) 431-7840
shannon.thorner@heinemann.com

From: Cassandra Johnson [mailto:cassandra.johnson@waldenu.edu]
Sent: Sunday, December 15, 2013 10:31 PM
To: Thorner, Shannon
Subject: Re: Concepts About Print Assessment

I would need pages 12-14 from *Cocepts About Print* OR pages 44-46 in *An Observation Survey of Early Literacy Achievement Third Edition.* Those are the only three pages I need for my study.

8:37 PM
1/20/2014

Appendix D: Letter of Cooperation

December 9, 2014

Dear Cassandra Johnson,

Based on my review of your research proposal, I give permission for you to conduct the study entitled Concepts About Print and Literacy Acquisition of Preschool Students. As part of this study, I authorize you to meet with the preschool teachers and teaching assistants, review test data of participating students, observe a daily thirty minute literacy lesson in both preschool classroom, and to collect data from this study. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: allowing you access to two preschool classrooms as well as access to data for this study on participating students. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix E:Data Use Agreement

This Data Use Agreement to view 2013-2014 and 2014-2015 Dominie test scores and 2015-2015 Circle Assessment test scores of preschool students, effective as of January 1, 2015, is entered into by and between Cassandra Johnson and your elementary school. The purpose of this Agreement is to provide Cassandra Johnson with access to a Limited Data Set ("LDS") for use in research in accordance with the HIPAA and FERPA Regulations.

Definitions. Unless otherwise specified in this Agreement, all capitalized terms used in this Agreement not otherwise defined have the meaning established for purposes of the "HIPAA Regulations" codified at Title 45 parts 160 through 164 of the United States Code of Federal Regulations, as amended from time to time.

Preparation of the LDS. Your school shall prepare and furnish to Cassandra Johnson a LDS in accord with District, HIPAA or FERPA Regulations

Data Fields in the LDS. No direct identifiers such as names may be included in the Limited Data Set (LDS). In preparing the LDS, your school shall include the **data fields specified as follows**, which are the minimum necessary to accomplish the research:

2013-2014 and 2014-2015 Dominie Test scores as well as 2014-2015 Circle Assessment scores of preschool students.

Responsibilities of Data Recipient. Data Recipient agrees to:

Use or disclose the LDS only as permitted by this Agreement or as required by law;

Use appropriate safeguards to prevent use or disclosure of the LDS other than as permitted by this Agreement or required by law;

Report to Data Provider any use or disclosure of the LDS of which it becomes aware that is not permitted by this Agreement or required by law;

Require any of its subcontractors or agents that receive or have access to the LDS to agree to the same restrictions and conditions on the use and/or disclosure of the LDS that apply to Data Recipient under this Agreement; and

Not use the information in the LDS to identify or contact the individuals who are data subjects.

Permitted Uses and Disclosures of the LDS. Data Recipient may use and/or disclose the LDS for its research activities only.

Term and Termination.

Term. The term of this Agreement shall commence as of the Effective Date and shall continue for so long as Data Recipient retains the LDS, unless sooner terminated as set forth in this Agreement.

Termination by Data Recipient. Data Recipient may terminate this agreement at any time by notifying the Data Provider and returning or destroying the LDS.

Termination by Data Provider. Data Provider may terminate this agreement at any time by providing thirty (30) days prior written notice to Data Recipient.

For Breach. Data Provider shall provide written notice to Data Recipient within ten (10) days of any determination that Data Recipient has breached a material term of this Agreement. Data Provider shall afford Data Recipient an opportunity to cure said alleged material breach upon mutually agreeable terms. Failure to agree on mutually agreeable terms for cure within thirty (30) days shall be grounds for the immediate termination of this Agreement by Data Provider.

Effect of Termination. Sections 1, 4, 5, 6(e) and 7 of this Agreement shall survive any termination of this Agreement under subsections c or d.

Miscellaneous.

Change in Law. The parties agree to negotiate in good faith to amend this Agreement to comport with changes in federal law that materially alter either or both parties' obligations under this Agreement. Provided however, that if the parties are unable to agree to mutually acceptable amendment(s) by the compliance date of the change in applicable law or regulations, either Party may terminate this Agreement as provided in section 6.

Construction of Terms. The terms of this Agreement shall be construed to give effect to applicable federal interpretative guidance regarding the HIPAA Regulations.

No Third Party Beneficiaries. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.

Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Headings. The headings and other captions in this Agreement are for convenience and reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed in its name and on its behalf.

DATA PROVIDER	**DATA RECIPIENT**
Signed: _____	Signed: Cassandra Johnson
Print Name: _____	Print Name: Cassandra Johnson
Print Title: _____	Print Title: Researcher