ARE THEY READY? AN INVESTIGATION OF THE READING READINESS
DEFICIENCIES OF KINDERGARTEN STUDENTS

by

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Abstract

The primary purpose of the study was to investigate the extent to which students who entered kindergarten are deficient in reading readiness skills; to determine the outcome of parental involvement in children’s early education; and to gain a clear, holistic understanding of the research problem. The research methodology selected for this study was a mixed-method approach involving qualitative and quantitative techniques. The design was used to investigate valid characteristics of reading readiness deficiencies of 114 students who entered kindergarten, and analyzed state- and district-provided data from the Florida Assessments for Instruction in Reading (FAIR) assessment and Early Childhood Observation System (ECHOS) observation. The study also involved 9 kindergarten teachers and 69 parents who volunteered and completed questionnaires regarding perspectives about reading readiness deficiencies. The study investigated the factors that contribute to the reading readiness deficiencies of kindergarten students. The factors examined include preschool attendance, gender, race, parent’s education, and type of parental supports. The results indicate that preschool experiences and parental involvement significantly contribute to kindergarteners’ reading readiness development. Kindergarteners who lack basic academic skills are ill-equipped for formal learning experiences and impede kindergarten teachers’ ability to begin a program of instruction. The study recommends that school board policymakers should adjust the kindergarten curriculum to meet the reading readiness needs of students entering kindergarten.
CHAPTER 1. INTRODUCTION

Introduction to the Problem

Reading competence is of fundamental importance to students’ positive academic achievement in public, private and tertiary institutions, and is highly valued for social and economic advancement in society (Shoebottom, 2007; Zablocki, 2006). Reading forms the basic foundation to all other subjects and is required in order to answer questions correctly on mandated standardized tests (Klein, 2008). The ability to read unlocks the doors to information, and stimulates literacy proficiency, creative thinking, and comprehension skills. Reading involves making sense of written text, building speaking vocabulary, and imitating words. Reading is an interactive process that encourages the reader to form new thoughts, ideas and build imaginative skills. It allows the listener or reader to interpret pictures, and ask and answer relevant questions (Schwartz, 2008). According to President Obama (2009), reading provides endless enjoyment, helps to release the creative abilities of children and is an important component for future personal accomplishment. Reading experts believe that the construction of literacy foundation begins during the early years of child development, and that children from rich literacy home environments demonstrate higher levels of reading knowledge and skills, when they enter kindergarten (Nord, Lennon, Liu, & Chandler, 2000).

According to the U.S. Department of Education (2007), family involvement develops intellectual maturity and early reading readiness skills, and it also has the potential to double public investment in what children learn. However, some parents do
not understand the importance and impact of their involvement and do not provide either a language enriched home environment or accept the challenges of constructing a learning relationship with their children (Finney, 2000; Gest, Freeman, Domitrovich, & Welsh, 2004; Shaklee, Hardin, Clinton, & Demarest, 2003).

Conversely, the National Education Goals Panel recognizes the need to alert parents in the United States about the importance of their involvement, and organized workshops to provide support and training. However, some parents do not take advantage of the assistance provided because they believe their children are not ready for learning until they begin kindergarten (Fan & Chen, 2001; Lomeo-Smrtic, 2008). Wolfe and Nevills (2004) and Machado (2007) believed that children begin learning from infancy when some parents talk and smile with them, and show them love and affection. The authors argue that children copy and imitate holding a book, pretending to read and using familiar words and story text when some parents read to them from that early age.

However, according to the National Institute for Literacy (1998), some parents do not believe that they are qualified to even read to their own children, primarily because of personal illiteracy problems. Interestingly, surveys from the National Center for Education Statistics (2001) supported that belief, indicating that 11 million adults can read only at or below the fifth-grade level. Furthermore, about 5 million adults who are holding jobs are considered functional illiterates (The Talking Page Literacy Organization, n.d.). In addition, according to The Families and Work Institute (Muscott, 2002), 66% of parents without jobs admitted that they were too busy making ends meet to help their children learn anything. Other parents avoided being involved in school
experiences because of personal academic embarrassment during their school years (Muscott, 2002).

Regrettably, though, the home is no longer the initial learning environment for many young students, as because of economic problems both parents have to seek employment outside the home. As a result, the responsibility of teaching young children becomes that of daycare personnel, older siblings, television shows, and preschool teachers. However, those experiences have not always been effective as a result of instructional deficiencies and financial shortfalls. Furthermore, the National Institute for Early Education Research reported that preschool teachers lack the skills and training to become effective teachers, as less than 50% of preschool teachers have either a college degree or a bachelor’s degree in early childhood education (Barnett, 2004). In addition, some learning facilities have no organized learning programs. Their daily activities include nap time, play and snack times. Structured language interactions which are opportunities to build and practice vocabulary and literacy skills are either nonexistent or limited to instructions and commands (Dickinson & Neuman, 2006).

In 1990, however, U.S. Congress enacted the Children’s Television Act (CTA) requiring local television networks to produce children’s shows with age-appropriate content and interactive learning experiences. Homes with television have access to shows that are educational particularly for preschool-aged children. Free Head Start classes provide services for low-income families. Their programs have with strong parent involvement focus and provide instruction on reading readiness skills. Also, free voluntary prekindergarten (VPK) for all 4-year-old children consists of planned activities to prepare children for early literacy and make them ready for kindergarten. The VPK
programs also include focus on school readiness, pre-reading, math and social skills. In addition, a wide variety of easily accessible toys and games for young children currently contain interactive learning components that motivate children to explore and discover. In addition, neighborhood libraries provide opportunities to stimulate young children’s literacy experiences, and print exploration through story time and interactive computer privileges. Stores and fast food restaurants allure young children with toys, coloring materials, and free books that are designed to stimulate young inquiring minds and motivate some parents to take the initiative to cultivate the learning appetite of their young children (Huston, 2001).

Today’s society demand high levels of competence and reading proficiency from individuals who wish to enter the workforce. Those individuals are required to be literate and capable of operating in environments that are technologically advanced. However, if most parents are not involved in the early learning experiences of their children, deficiencies in reading readiness will proliferate in kindergarten, and eventually increase high school dropouts, juvenile delinquency and grade retentions. Some students will also become unemployable and socially dependent (Carnegie Corporation, 1994; Lyon, 1998). The purpose of this research was to investigate the factors that contribute to the reading readiness deficiencies of some students entering kindergarten and bring awareness to the problem that exist in elementary schools.

**Background of the Study**

The majority of students who entered kindergarten at the school in the study lacked the basic skills to begin their formal education. The majority of students also lacked phonemic awareness and were unable to recognize letters and sounds. In addition,
the students did not understand test or the message it contains, could not hold a book correctly, and lacked fine motor skills development. The lack of social skills hindered the students’ ability to communicate clearly and audibly and perpetuated frequent bathroom accidents and regular visits of the custodial staff. Behavior problems, hyperactivity, reluctance to begin projects, or process simple instructions permeated the classrooms. The environment also included some students with separation anxiety. The students spent entire mornings crying for either their siblings or mothers and could not be comforted even during snack or playtime. Overall, most of the students’ levels of knowledge and skills were far below the expectations of the kindergarten teachers and the school board.

To compound the problem, some parents were confident that their 5-year-olds were able to read well enough for promotion to the first grade and took the initiative to nudge their reluctant children to demonstrate their abilities. However, the experiences were visibly frustrating for all concerned, as the obviously upset children failed to fulfill the expectations of either their doting parents or those of the captivated listening audience (Olson & Hyson, 2005).

According to the National Education Goals Panel, all children living in America have the opportunity to receive high-quality and developmentally appropriate preschool programs, to help make them ready for kindergarten. Those early literacy programs are essential to the healthy growth and development of children and will positively impact their formal education (Justice, 2006). Yet, despite the availability of those essential experiences, some parents believed academic preschools were either too expensive or unnecessary. Some parents did not believe that their children would fall behind if they did not attend preschool and were sure their children had the ability to catch up during the
kindergarten year. However, Snow, Burns, and Griffin (1998) reported that the students who lacked basic academic skills at the beginning of the school year, always performed behind their peers in all subject areas.

The reading curriculum for kindergarten provides minimal experiences to help the students manipulate the connection between letters and sounds. However, those phonetic experiences are intended to reinforce, rather than teach the concepts (Florida Center for Reading Research, 2005; Ontario Ministry of Education, 2006).

As a result, the students who lacked reading readiness skills failed to show proficiency on the Florida Assessments for Instruction in Reading (FAIR) test that was administered within the first 2 weeks of the kindergarten year. FAIR assesses the students’ ability to recognize and produce correct letter names and sounds, as well as print knowledge, phonological awareness, vocabulary and listening skills. FAIR, is a good predictor of future reading achievement and identifies students with learning deficiencies.

According to the Florida Department of Education (2009), 65% of the students entering kindergarten classes in the 168 South Florida elementary schools had adequate reading readiness skills. The students who were considered ready for kindergarten were those scoring at the demonstrating or emerging/progressing levels. The students also demonstrated all or some of the skills they knew, or were able to do at the beginning of kindergarten.

In addition, according to the 2002 WGBH Educational Foundation, 85% of most children diagnosed with learning difficulties also had problems with reading and language skills. They also had short attention spans, memory problems, and difficulties
learning English as a second language (WETA, 2008). Some students with physical, neurological, and cognitive deficiencies require special remediation to be able to master the skills of reading. The remediation and services are either provided in the immediate classroom, online or in other classrooms. Some of the students, particularly those that were pulled out of their regular classes for remediation, did not show mastery of skills. Some of the students were ridiculed by their peers; as a result, these students developed low self-esteem (Watson & Gemin, 2008).

The philosophy of kindergarten dated back to 1837, when Friedrich Frobel formulated the *child garden*, an environment in which children learned through play (Lucas, 2005). The focus then was solely on developing social skills, and classes only lasted for half a day. The curriculum excluded learning to read and write as those skills were considered developmentally inappropriate for 5-year-olds. The skills in the curriculum were based on the students’ attention span, interest, and maternal ties (National Association for the Education of Young Children, 1998).

The current experiences in kindergarten are quite different than experienced before. Students now participate in full- or half-day learning experiences that include play, social, and alphabet skills. According to Pennsylvania Partnerships for Children, (2000), a transition to these new skills is possible because the brain of the 5-year-old has become more receptive to learning and is capable of building foundations to accommodate future education. As a result, a typical classroom currently contains age appropriate books and learning apparatus for exploration and hands on experiences. New curriculum was defined by individual state standards, and includes reading, writing, science, and mathematics. A study conducted in Philadelphia (Viadero, 2002), compared
the progress of kindergarteners, who either attended full or half day sessions. Full-day students had greater improvements in academic performance and lower retention rates than half day session students (Viadero, 2002).

The changes in the kindergarten curriculum were also influenced by the new emphasis of educational accountability movements under federal legislation and the No Child Left Behind Act. Schools in Florida were held accountable for educating all students and meeting specified academic targets in reading and mathematics (Gao, 2005; U.S. Department of Education, 2009). In 2002, President Bush expressed his commitment to ensure that every child acquire reading proficiency by the third grade. Subsequently, through the Reading First initiative in Florida, reading instruction programs, received increased federal funding to assist students to reach those goals in reading. The programs are dependent on federal funding but provide professional development in reading instruction to help reduce the number of students with reading difficulties in kindergarten through 12th grade (Lefsky, 2007).

Acquired reading readiness skills greatly impact students’ long-term learning experiences and states drafted individual standardized tests and assessment to determine the levels of students’ achievement, as well as their reading readiness skills. In Florida, the FAIR and the Early Childhood Observation System (ECHO) are used to assess students’ reading readiness skills in kindergarten. Table 1 indicates ECHOS scores for the State of Florida during 2006 to 2009. The results compare the percentage of students who were either ready or not ready for kindergarten. As a result, 14.06% of the kindergarten students were ready in 2006 compared to 11.49% not ready in 2009 (Blasik, 2007).
Table 1. Summary of Florida ECHOS Status, 2006–2009

<table>
<thead>
<tr>
<th>ECHO status</th>
<th>Number (percentage) of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>Ready</td>
<td>158,240</td>
</tr>
<tr>
<td></td>
<td>(85.94%)</td>
</tr>
<tr>
<td>Not ready</td>
<td>25,884</td>
</tr>
<tr>
<td></td>
<td>(14.06%)</td>
</tr>
<tr>
<td>Total</td>
<td>184,124</td>
</tr>
</tbody>
</table>

Note. Data from Blasik, 2007.

According to the Florida Department of Education (2009), which employed the Early Observation System (ECHOS), 89% of students who entered kindergarten in the 168 schools in Florida were considered ready for kindergarten.

The ECHOS results indicated that Broward County schools were among the 34 districts that had a total of 80 to 90% student readiness in 2009-2010 (Florida Department of Education, 2009).

In 1999, the National Reading Panel (NRP) was appointed by Congress to draft best practices to ensure successful readers in schools (National Institute of Child Health and Human Development, 2000). According to the National Education Goals Panel, students were expected to begin school by 2000 ready to learn. The students should also demonstrate competency in all subject areas by grades 4, 8, and 12 consecutively. However, reading readiness deficiencies are still very widespread in the private and public schools, and educators and community leaders share great concerns about the long-term implications (North Central Regional Educational Laboratory, n.d.). Consequently, schools and teachers have to be prepared to embrace the challenges in
reading every school year (Ackerman, & Barnett, 2005; Afflerbach, Pearson, & Paris, 2008).

**Statement of the Problem**

The No Child Left Behind Act indicated that all children in the United States should acquire proficiency in reading and math by the year 2014. Children are entitled to equal and high-quality education. Subsequently, each state has organized academic standards and training to help students meet the challenges of proficiency in elementary and secondary education. In Florida, where this study was conducted, the Broward Enterprise Education Portal (BEEP) provide training and relevant resources to help teachers, reading resource specialists, and reading coaches improve student achievement (SchoolWorks, n.d.). The state accountability systems validate the levels of student achievement and determine the measure of monetary support needed each year.

It was evident throughout educational literature, that the literacy skills with which some students enter kindergarten, determined the success or failure they would experience in learning to read (Adams, 1990). Subsequently, some students who entered kindergarten were not ready to begin formal learning as they lacked basic literacy skills. However, it was not known how and to what extent reading readiness deficiencies existed in some students who entered kindergarten and how parental involvement contributed to the development of reading readiness skills. This proposed study sought to investigate the factors that contributed to the reading readiness deficiency problems of some students entering kindergarten and brought awareness to the problem that exists in some schools.
Purpose of the Study

The study investigated the factors that contributed to the reading readiness deficiencies of some kindergarten students. The study also determined the impact of some preschools and parental involvement that help to narrow the reading readiness gap of kindergarteners. A mixed methods design was employed for the study. The design was used to analyze data from FAIR assessments and ECHOS observation, as well as the perspectives of some parents and teachers that were collected on individual questionnaires. The kindergarten teachers’ ability to begin instruction from the kindergarten curriculum depends on the readiness levels of some students entering kindergarten. The study will bring awareness to the problem that exists in some schools.

Rationale

Researchers associated the ability to read with maturation, developmental readiness, social interaction, and critical thinking ability. Researchers also viewed maturation as a measure that determined the appropriate mental readiness for successful reading and attitude towards learning to read (Crawford, 1995). Without those skills, some kindergarten students are unable to acquire good alphabet knowledge and phonological skills. The deficiencies create delays in the development of critical thinking, communication skills, vocabulary, creative abilities and writing abilities (Smart Communications, 2005).

Researchers indicated that 35% of the nation’s kindergarten children, and 60% of inner cities students were not ready for school in 1990 (Boyer as cited in Urahn, 2001). Data from the research conducted 10 years later showed that 71% from the inner cities were still unable to recognize concepts of print on entry to kindergarten (West, Meek, &
Hurst, 2000). In addition, only 9% of working parents were involved in the early learning processes of their children (Griffiths-Prince, 2008). However, some parents who believe the process was unnecessary were less involved in the learning experiences of their children even though states, the federal government, Congress, and the Goals 2000: Educate America Act have organized and implemented programs to provide them with assistance and encouragement (Sheldon, n.d.).

Some parents are still reluctant to help young children acquire knowledge and skills for reading, as they think it is best to leave the responsibility to some kindergarten teachers (Nord et al., 2000). According to Harmon (as cited in Mann, 2001), however, it is not fair of some parents to expect teachers to be solely responsible for teaching children what they need to know (Multnomah County Library, 2010).

The findings from this study supported the theory that reading readiness deficiencies impeded some students’ academic performance and brought awareness of the problem that exists in some elementary schools.

**Hypotheses and Research Questions**

There were six research hypotheses and two research questions that guided this study:

**Research Hypotheses**

H1a: There is a difference in the FAIR scores between kindergarten students who attended preschool and students who did not attend preschool (H1a: $\mu_1 - \mu_2 \neq 0$).

H1o: There is no difference in the FAIR scores between kindergarten students who attended preschool and students who did not attend preschool (H1o: $\mu_1 - \mu_2 = 0$).

H2a: There are differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more years of preschool (H2a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).
H2o: There are no differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more years of preschool (H2a: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H3a: There is a difference in the FAIR scores of kindergarten students between male and female students (H3a: $\mu_1 - \mu_2 \neq 0$).

H3o: There is no difference in the FAIR scores of kindergarten students between male and female students (H3o: $\mu_1 - \mu_2 = 0$).

H4a: There are differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H4o: There are no differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H5a: There are differences in the FAIR scores of kindergarten students whose parents had less than a high school diploma, a high school diploma, less than 4 years of college education, and 4 or more years of college education (H5a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H5o: There are no differences in the FAIR scores of kindergarten students whose parents has less than a high school diploma, a high school diploma, less than 4 years of college education, and 4 or more years of college education (H5o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H6a: There are differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H6a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H6o: There are no differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H6o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

**Research Questions**

1. What were the commonly displayed readiness deficiencies among students at the beginning of their kindergarten year in a Florida school?

2. What types of parenting practices do parents have for kindergarteners whose FAIR scores are above the benchmarks?
Significance of the Study

Reading scientists have accumulated evidence to prove that deficits in phonological awareness were the main causes of early reading difficulties in some young children (Hettleman, 2003). Phonological awareness is an essential aspect of the reading skills acquisition as it includes (a) rhymes, (b) letter names, (c) sound-letter consonants, (d) letter-sound consonants, (e) initial consonant substitution, (f) letter-sound vowels, and (g) sight words (Behrmann, 2000).

The study investigated the factors that contributed to the reading readiness deficiencies of some kindergarten students. The study also determined the impact of some preschools and parental involvement on narrowing the reading readiness gap of kindergarteners. A mixed methods design was employed for the study. The study brings awareness of the problems that exists in some elementary schools.

Definition of Terms

The following terms were used operationally in this study:

_Alphabet._ According to The Linux Information Project (2004), the alphabet is a standardized set of 26 letters used to print written language.

_Decoding._ Decoding refers to the process of translating graphemes into spoken language. It is the knowledge of letter patterns used to figure out and pronounce unfamiliar words (WETA, 2008).

_Kindergarten evaluation._ This is a process of collecting data to monitor students’ academic progress and provide feedback to identify the students’ strengths and weaknesses (Trochim, 2006).
**Kindergarten readiness.** According to the environmentalist theory, kindergarten readiness is the age when children understood rules, behavior, curriculum and instruction in a formal learning environment (Iannelli, 2007)

**Learning.** Learning is the ability to understand and remember information. It is a cognitive approach that involved reasoning, critical thinking, problem solving skills and the construction of meaning by connecting new information to previous knowledge or experiences (Kolb as cited in Richmond & Cummings, 2005).

**Literacy development.** Literacy development is the beginning stages of reading and writing. It involves listening, speaking, scribbling to imitate letters or words and reading words in text through pictures (Araujo, 2002).

**Phonemes.** Phonemes are defined as the smallest parts of sound in a spoken word. They establish the differences in the meaning of words and contain digraphs that group two or more consonants to produce a single sound. Example of digraphs include $sh\backslash o\backslash p$, $f\backslash a\backslash n$, $m\backslash a\backslash n$, $th\backslash i\backslash s$, and $w\backslash i\backslash g$ (Armbruster, Leher, & Osborn, 2003).

**Phonemic awareness.** Phonemic awareness is a valid predictor of students’ ability to learn how to read (Adams, 1990). It allows student to analyze, separate, blend and manipulate sounds to form rhyming words, understand the relationship between the spoken word and print, and make the connections between letters and sounds (Kindergarten Teacher Reading Academy, 2002).

**Phonics.** Phonics involves rules to be memorized and applied when putting sounds of letters together to sound out new words (Wilber, 2003).
**Reading.** According to the National Reading Panel (2000), reading is the ability to develop phonemic awareness and phonics skills in order to accurately and fluently recognize and understand words in text.

**Reading readiness.** Reading readiness is the process of developing a rich vocabulary and acquiring adequate knowledge about language and literacy. According to the U.S. Department of Education’s National Center for Education Statistics and the National Early Literacy Panel (NELP), reading readiness involves print awareness, alphabet knowledge and phonological awareness, environmental print, listening comprehension, visual memory, and visual perceptual skills (Iannelli, 2007; Strickland & Shanahan, 2004).

**Reading readiness deficiencies.** Reading readiness deficiencies encompass the inability to recognize letters and sounds, words, blends, syllables, and story in pictures (Leach, Scarborough, & Rescorla, 2003).

**Assumptions**

The following assumptions were presented in this study:

1. The perception and views of the participants who completed the questionnaires were comparative to the perception and views of the general population.

2. Participants who completed the questionnaires gave honest and accurate responses.

3. Observations revealed behaviors that were typical of students beginning kindergarten.

4. The data gathered impacted the kindergarten curriculum.

**Limitations**

The following limitations were presented in this study:
1. The study was limited to kindergarten students who attended a specific elementary school in the southern part of the State of Florida, which reduced generalization to other kindergarten populations.

2. The conclusions drawn from the study were applicable to students who entered kindergarten with reading readiness deficiencies.

3. The data collected was dependent on the cooperation and willingness of participants.

4. Opportunity to observe home learning environment and preschools was not permissible.

**Nature of the Study**

A mixed methods approach was employed for the study. According to Creswell (2008), mixed methods research involved collecting analyzing and interpreting qualitative and quantitative data in one study. The methods utilized the responses to questions from both genres. Qualitative data were collected from the questionnaires to parents and teachers, to provide a more comprehensive understanding of the problem. Quantitative data from FAIR assessment and ECHOS observation determined the degree of differences in reading readiness skills between some students who entered kindergarten with or without preschool experiences. The data also determined the relationship between some parental involvement and students’ reading readiness abilities. The theoretical framework for qualitative approach was based on the traditional view. The data was analyzed and interpreted to determine the factors that contributed to the reading readiness deficiencies of the kindergarten students. The analysis included looking for patterns, similarities, differences, themes, coding, categories, and relationships in the data to gain a deeper understanding of the problem (Huels, 2005).
Organization of the Remainder of the Study

The remainder of the study includes the following consecutive chapters. Chapter 2 reviews literature that was relevant to the study. Chapter 3 describes the specific study methods, and chapter 4 contains an analysis and interpretation of the data. Finally, Chapter 5 summarizes and provides conclusions of the study. The chapter also includes related recommendations to parents and preschool and kindergarten teachers as well as school administrators and school board personnel. The estimated timeline for the project was 6 months from the approval date of the dissertation proposal.
CHAPTER 2. LITERATURE REVIEW

The purpose of this research was to investigate the factors that contributed to the reading readiness deficiencies of some kindergarten students, to bring awareness to the instructional problem with which some kindergarten teachers are faced at the beginning of each school year, and contribute to the existing literature. The issues examined in this chapter delineated the need for additional research and further review of the early childhood education policies and programs that are mandated by the National Education Association. The research included review of some parental involvement and certification and professional development for some preschool teachers. This chapter was a review of literature of research in (a) child developmental and learning theories, (b) reading readiness, (c) selecting appropriate preschools, (d) reading deficiencies, and (e) assessing reading readiness deficiencies.

Child Developmental and Learning Theories

One of the beliefs of the cognitive development theory is that children need to build early readiness skills during daily life experiences to be eligible to learn more complex concepts in the future. The cognitive readiness skills are the catalyst for mastering the ability to read, comprehend and solve problems (Baroody, 2003, Le, Kirby, Barney, Setodji, & Gershwin, 2006). The ability to read is a complex challenge that requires children who enter kindergarten to have proficiency of literacy and basic academic skills (Santa Clara County Partnership for School Readiness, 2008). It is essential that individuals who prepare children for kindergarten not only love children but
also have good knowledge of the literacy curriculum, and are involved in continual professional development (Anders, Hoffman, & Duffy as cited by International Reading Association, 2004). The theoretical foundations of this study were based on Jean Piaget’s cognitive and development theory, Lev Vygotsky’s sociocultural constructivist theory, and Erik Erickson’s stages of growth. The theorists used the environment, cultural and background experiences to gain knowledge of children’s level of development in order to determine their reading readiness abilities. The following information focused on theories that related to learning and reading readiness development.

**Piaget Cognitive Development Theory**

Jean Piaget’s learning theory formed the framework for the cognitive development of the kindergarten students in the study. The theory focused on the process by which children grew, interacted with others, and learned about the world around them. During the cognitive development, the children learned to recognize individuals, make judgments, reason, imagine, memorize information, and solve problems (Piaget, 1971). Cognitive development outlined the modes of thinking and logic that children employed as they learned basic foundation skills.

Cognitive development also involved the process of constructing knowledge and skills and was an extension of biological growth and an invariant sequence of four qualitatively distinct stages. Children had to pass through those stages that could neither be skipped nor reordered, even though some children were able to advance through some stages faster than others. The stages are sensorimotor, from birth to age 2; preoccupational, from age 2 to 7 years of age; concrete operational, from 7 to 11 years old; and formal/operational, upwards from 11 years of age. During the sensorimotor
period, children build motor reflexes through experiences and physical interactions with individuals. Children touch, feel, and taste to gain understanding of the world. The children learn about object permanency and develop new intellectual abilities as they realize that they are in control of his movements. Children communicate by imitating sounds and simple words. Piaget also believed that children develop more language experiences and mental imagery through the preoccupational stage. Children also become egocentric, and develop the ability to pretend, write, think, and reason in nonlogical and nonreversible patterns (Boeree, 2006; Piaget, 1971).

During the concrete operational stage, children use logical reasoning, demonstrate concrete knowledge, and solve problems in nonfiction stories. Children also understand the seven types of measurement: number, liquid, length, weight, mass, volume, and area. By the time the children reach the formal operational stage, Piaget (1977) believed that they are self-motivated; have greater concept of theoretical, abstract thinking and logical reasoning; and develop stronger abilities to solve problems. The children learn by reading and helping peers and adults. The children are also better able to interact with peers, make friends, and follow rules and routines. Piaget (1971) found that the children master separate levels of understanding in each stage and that each successive stage incorporates elements of previous stage or stages. In addition, the children learn to master the ability to reason and form relationships from the concrete stage. Also, the children develop schemas by assimilating or accommodating new information into existing schemas, as they explore, manipulate, experiment, interact, argue with peers, and question the world in which they live (Atherton, 2010).
Piaget’s developmental theory provided a model and the foundation for constructivist in the current early childhood education. In this process children were given the opportunity to learn through social interaction with their peers, and to construct their own knowledge through meaningful, cooperative learning experiences with concrete materials. Children were also motivated to be involved in their own learning experiences and developed the ability to solve problems, explore and discover the world of knowledge (Huiit & Hummel, 2003; Piaget, 1971).

**Erickson’s Psychosocial Stage Theory**

Erik Erickson’s psychosocial stage theory focused on the development of ego identity or self-consciousness that was developed through daily social interaction with others. Erickson believed the consciousness changed as the individual learned new information and participated in new experiences through interactions. As a result, Erickson believed the individual’s behavior was enhanced by the development of a new sense of competence. Erikson’s theory involves eight stages of growth from infancy to adulthood. Each individual experienced these stages, with internal conflicts or psychosocial crises which were important in the definition of growth and personality. Stage 1, the oral sensory age, was from birth to 12–18 months and involved the conflict between trust and mistrust. Stage 2, was the muscular/anal age, and ranged from 18 months to 3 years. Stage 2 involved the conflict stages between autonomy, shame, and doubt.

Stage 3 focuses on initiative and guilt. Stage 3 is the locomotor age and ranges from 3 to 6 years. Stage 4 is the latency age from 6 to 12 years and involves the conflict between industry and inferiority. Stage 5 is the adolescence age of 12 to 18 years and
involves the conflict between identity and role confusion. Stage 6, the young adulthood age, entails intimacy and isolation, and ranges from age 19 to age 40. Stage 7 is the middle adulthood age, from 40 to 65 years. Stage 7 includes the difference between generativity and stagnation. Stage 8 involves the life reflection years, from age 65 to death. Feelings of despair and regret or accomplishment, success, and integrity may be part of the reflection process (Winters, n.d.).

As the stages develop, the individual becomes competent and experiences conflict, the potential for personal growth, and a sense of ego strength. During the period the child developed personal and social identity, gained acceptance and formed relationships with others. An identity crisis also developed as the child analyzed and explored different ways of understanding individuality and self-consciousness (Wagner, 2005).

Erickson also believed that the individual’s development is influenced through interaction with parents or grandparents. He called that process mutuality. A development problem occurs, however, when the parent is a teenager and is still involved in an identity crisis. Invariably, the adolescent mother is unable to provide the mature social support and the child’s development is disrupted as the child’s needs are not met. However, the child experiences emotions; builds self-esteem, trust, confidence, initiative, and autonomy; and learns to interact well with others as the child receives encouragement and the need for attention and affection are met. Conversely, the child learns to be ashamed, doubtful, guilty, isolated, confused, and doubted others. During the physical development, a child’s fine and gross motor skills get stronger. The child develops
creativity in music and drama, and improves the ability to reason and communicate thoughts and opinions (Huitt as cited in Cole & Tufano, 2008).

Erickson’s theory provides concepts of self-awareness, personality, coaching, conflict resolution, development, and understanding the behavior and action of self and others for students in today’s early childhood education. The theory allows students to achieve a healthy balance between the experiences of opposing crisis and assisted their growth to be responsible, considerate, ethical, trustworthy, strong, virtuous, and independent individuals (Chapman, n.d.).

**Vygotsky’s Social Constructivist Theory**

Lev Vygotsky’s social construction of knowledge theory accentuates cognitive development that children’s thinking and their meaning making skills are constructed through social and cultural interaction with their home environment and community (Kaufman, 2004). Vygotsky incorporated concepts in his model, such as human development and sociocultural approach, in which the development of the individual was the result of his culture. Vygotsky’s theory also focuses on social interactions to develop the individual’s culture, thought, language and reasoning process during the mental developmental stage.

Vygotsky viewed the similarity between the mental abilities and the historical sequence of events as the culture in which the child was reared. Culture contributed to the child’s intellectual development. First, Vygotsky acquired knowledge and thoughts, and then developed the tools of intellectual adaptation or the ability to know how and what to think. Vygotsky viewed cognitive developments as a result of a dialectical process in which the child learned through imitation or shared problem solving experiences with
parents, teachers, siblings, and peers. Gradually the responsibility to solve problems was transferred to the child through the body of knowledge that existed within the culture. Eventually, the child’s own language became his primary tool of intellectual transformation in which he created social interactions, solved problems, overcame impulsive action, planned solution, controlled behaviour and formed his own view of the world (Helaine, 2010).

The second aspect of Vygotsky’s theory is the idea that the potential for cognitive development is limited to a certain span that he called the zone of proximal development (ZPD). ZPD refers to the gap between what a child achieves alone and what the child achieves with adult guidance or with the help of his peers. What a child did independently was labelled as Vygotsky’s level of actual development and what he accomplished with assistance or instruction dictated his level of potential development. Vygotsky believed that a standard IQ test measured levels of actual development and evaluated the child’s ability to solve problems, and that the cultural tools passed to others as he engaged in collaborative learning experiences with his peers. Vygotsky’s theory made a positive impact on today’s early childhood education. Educators recognized the importance of speech, language, and IQ in the development of individuals and encouraged students to use his scientific, experimental, or trial-and-error techniques to solve problems, and analyze and synthesize scientific concepts within interactive groups (Blunden, 1997; Donaldson, 2009).

Reading Readiness

Reading readiness is the knowledge that students needed to prepare for reading experiences as well as the preparation that schools made to accommodate students who
entered kindergarten (Krogh & Slentz, 2001). The concept of readiness is uniquely defined by each state. They include (a) knowing all the letters and their sounds; (b) being ready to learn to read and write; (c) chronological age, or number of years the student has lived; (d) the expectations of the classroom teacher; and (e) student’s level of social, perceptual, motor, and language development (Peth-Pierce, n.d.). Readiness is an interactive process that involves the child, family, community, and environment in ways to support the social-emotional development, physical, emotional, language, and cognitive skills (Boethel, 2004).

In addition, idealists define readiness skills as students’ maturity, the empiricist as a process of developing skills and the social constructivist as the meanings and values of the community in which the school was located. As some students developed readiness skills for reading, they learned how to function individually and in groups. The fine and gross motor skills also developed and the students followed directions, listened to stories as well as attended to their personal needs (Saluja, Scott-Little, & Clifford, 2007).

According to Thornburg, Cable, Scott, Mayfield, and Watson (2002), the Goals Panel and Florida Department of Education, reading readiness is being healthy, immunized, having self-control, the ability to solve problems, becoming familiar with books and print, gaining knowledge of the world and developing enthusiasm about learning to read. Reading was closely associated with language development and was the ability to express feelings, ideas and thoughts in oral sentences. Students acquired those skills regardless of their levels of intelligence or the state of their home environment and expressed and received information through verbal and nonverbal forms of communication (“Delayed Speech,” n.d.; Slobin, 2010).
Language development began at birth and expanded gradually with social interaction with parents and peers. Eventually the child was able to verbalize and repeat words clearly as well as answer simple questions in sentences (Oesterreich, n.d.). However, some students experienced developmental delays and consequently had problems acquiring reading readiness skills. Language delays were caused by oral-motor problems, or the lack of sufficient communication in the areas of the brain that produced speech. Ear infection was another contributor to language delay. The infection prevented the ability to hear, and understand spoken words (“Delayed Speech,” n.d.).

Delays in cognitive development lead to mental retardation, or the inability to organize and remember experiences and information. Students who experienced those delays were inattentive, displayed aggressive behavior, short attention span, lacked coordination and the ability to interact with others. Other students who are considered to be withdrawn, and may have speech and language disorder which in turn impede reading readiness skills by age 5 (Scheffler et al., 2007).

**Importance of Reading Readiness Skills**

The early childhood years were extremely crucial for the development of literacy that prepared students for reading. Students who entered kindergarten were expected to know and be familiar with specific components of literacy. Young children understood the top-to-bottom and left-to-right concept involved in reading; used narrative skills, told stories, and described things. They were aware that letters had names and specific sounds; and manipulated sounds and rhyming words (Multnomah County Library, 2010). Students who do not have those skills were at risk for a successful kindergarten year. The
preschool years were imperative for acquiring those skills. According to Pullen and Justice (2003),

> The literacy concepts, knowledge and skills development in early childhood were excellent predictors of children’s future success in reading. Phonological awareness, print awareness, and oral language development were the three areas associated with emergent literacy that played a crucial role in the acquisition of reading. (p. 12)

In addition, studies from the Florida Partnership for Parent Involvement (n.d.) concluded that preschool students should acquire specific skills by the time they enter kindergarten. According to the National Association for the Education of Young Children (1998), students who entered kindergarten had positive and nurturing relationships and interaction with adults. The experiences included story telling, dramatic play, singing, and finger plays. Those students could also make patterns, play games, recite poems and rhymes, make lists, and explore the outdoors and nature. The students were also able to use building block, balls, crayons, paint, and puzzles. The Florida Department of Education requires kindergarteners to have a speaking vocabulary of at least 2,000. The students should also be able to speak clearly and hold a simple conversation. Students should also be able to retell and understand stories, use prewriting strategies, listen for specific information, and be familiar with television, radio, computer, books, magazines and the newspaper (Owens, 2000).

Reading research showed that children must develop an understanding of concepts to stimulate the act of reading and writing, not only for continued school success but more so for achieving educational excellence throughout their lives. Learning to read is required to meet the demands of an increasingly competitive economy. The process ensures that students are employable in the modern world, understand challenging material, and use printed matter to solve problems independently. Reading is
used to communicate meaningful information and build a valuable foundation of knowledge and skills. The vocabulary words gained through the experience increase students’ ability to understand stories, as well as speak and write well. Research showed that students with verbal skills, phonological awareness, letter knowledge and understanding of the purpose of reading had minimal reading difficulties (Nord et al., 2000).

Reading First (2008) provides grants to help improve reading achievement in schools and school districts through scientifically proven methods of instruction. Reading First has high goals for students’ reading achievement and, according to state evaluations, the program is making a positive impact on reading achievement. In Florida, kindergarteners are expected to show their level of readiness skills on the FAIR assessments. The levels range from above average to high risk and are clear indications of the successes or failures in kindergarten and successive grades. The Stanford Achievement Test (SAT) is administered in the first and second grades in Florida’s public school system. It measures school achievement in reading and mathematics which is compared with students around the country. The reading section requires students to read, comprehend, analyze text and demonstrate their vocabulary skills. It also measures phonemic awareness, decoding, phonics, vocabulary, and comprehension. The scores range from the categories of below basic to proficient and advanced levels (Johnson, 2002).

Students in the third through the 10th grades are assessed by the Florida Comprehensive Assessment Test (FCAT), in reading, writing, mathematics and science. Students are expected to show proficiency in reading and comprehension on those tests as
the results determine promotion and graduation status. Between 2001 and 2004 in San Mateo, Santa Clara, and other counties in California, a study was done to determine the readiness skills of students entering kindergarten. Readiness was defined as having the skills to be successful in school. The study involved 1,322 students from the kindergarten year to the fourth grade. Other objectives of that study included determining (a) the factors that were associated with students’ readiness for school, (b) the relationship between students’ readiness scores and schools’ ranking on the Academic Performance Index (API), and (c) how the expectations of teachers related to the readiness scores. The results indicated that 440 students showed proficiency in readiness skills when they entered kindergarten (Santa Clara County Partnership for School Readiness, 2004).

Approximately three quarters of the students were proficient in physical well-being and motor development, social and emotional development, and learning readiness skills. The results indicated that 73% of the students met the teachers overall expectations of school readiness and only a 10% fell below expectations. However, children from the middle of the API levels produced significantly lower scores on most of the readiness skills in successive grades. Factors that affected readiness were related to the family, child or the environment. They included family income, educational status, family size, family income, and children’s age when they entered kindergarten, their gender, special needs, preschool teacher expectations and home environment (Santa Clara County Partnership for School Readiness, 2004).

Some students who showed proficiency in readiness skills performed significantly better on the standardized test in English and mathematics than students who were readiness deficient. The rewarding performances were more significant in the third,
fourth, and fifth grades. Kindergarteners who were not proficient, but were eager to learn, displayed improvement in test scores 4 years later. Conversely, those kindergarten students who were not eager to learn maintained the same attitude through to the third grade. The students, who attended preschool, had higher scores and better attention span than those who did not. The conclusion incorporated the importance of readiness and imaginative play in the development of cognitive skills (Bodrova, 2006; Spiegel, 2008). Reading readiness skills did matter as they created foundations for learning to read (Santa Clara County Partnership for School Readiness, 2004).

**Relationship Between Reading Readiness and Writing**

The process of learning to read and write began from the early stages as children gained basic understanding of language life and its functions. The process began with imitation of sounds, rhythms and patterns from the dialogue between them, adults and siblings. The infant cooed, made facial gestures in response and gained more understanding as he played, developed and grew. Eventually, the patterns and sounds were converted to words as parents continue to interact, sing songs, play games, recite poems, and read stories to them. When asked to make a picture or write a story, the child eagerly used knowledge of alphabetic system, linguistic and phonemic awareness to express the information. The child’s first picture had only an initial letter label, but with more exposure and experience with words, the label included invented or coined words. An interesting aspect was that students took their growing knowledge of story structure and incorporated it in their writing that they could read even when the letters did not really match. That was an encouraging sign for developing reading skills and for becoming fluent readers. Once the students developed the habit of using words for
pictures and understood where they fit best, reading became a more natural process. Reading and writing rely on the cognitive skills of memory, symbolic thinking and attention. The relationship between the two is the key to literacy learning, as the process is interactive and language-oriented (A. Good & Korab, 2003).

**Parental Involvement in Reading Readiness Preparation**

According to Fan and Chen, (2001) parental involvement in children’s learning process was important. Parental involvement was closely associated with high academic achievement, cognitive competence, problem-solving skills, school enjoyment, better school attendance, and less behavioral problems (Melhuish, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2001). Goal 1 of the 1993 *National Educational Goals Report* (U.S. Department of Education, 1993) implores American parents to become the first teachers for their children and take advantage of appropriate training to accomplish the task. Parental involvement included surrounding children with literacy from birth. It included oral or verbal interaction with them as well as playing games; singing songs such as *Hokey Pokey* and *The Bear Went Over the Mountain*; learning nursery rhymes such as *Jack and Jill*; and reading stories like *Goodnight Moon* by Margaret Wise Brown. By so doing, parents help to prepare students for the formal literacy instruction in kindergarten, and give them the advantage over their peers (Wade & Moore, 2000).

Research shows that the earlier that parents became involved in a child’s educational progress the more powerful the outcome. The literate home environment is an inspiration for reading achievement as it heightens the ability for oral and written expressions (Gest et al., 2004). According to Nord et al. (2000), students who entered kindergarten with higher levels of knowledge and skills were from homes with a rich
literacy environment. Parental involvement was not just limited to home experiences though. They included visits to the library, concerts, sporting events, family field trips, and participation in club activities. Research shows that students whose parents read to them regularly become familiar with the looks and sounds of words and fluent reading, develop an understanding of story structure, gain knowledge of written language and the structure of text, develop sound vocabulary, acquire new interactive sentences to use in writing, and learn that books provide enjoyment and information (Finney, 2000).

Selecting Appropriate Preschools

Some parents who seek appropriate preschools to help meet the needs of their children have a wide variety of options. Besides reputable, academic community preschools and daycare centers, the Florida Department of Education, the Office of Early Learning and The Early Learning Coalition of Broward County, Inc., provides Voluntary prekindergarten (VPK) programs. They are designed to prepare Florida’s children for kindergarten as they provide opportunities for students to develop the skills they need to become good readers and successful students. The program gives some parents the option to enroll their students either in a regular school year or the summer programs. Each program includes standards for literacy, and an age appropriate curricula. Students in the program get 300 instructional hours from qualified teachers and learn in small class sizes.

The VPK curriculum includes most of the standards and benchmarks administered in regular academic preschools. It comprises physical health, approaches to learning, social and emotional development, language and communication, listening, speaking, vocabulary, sentence structure, conversation, emergent reading and writing, cognitive development and general knowledge, mathematical and scientific thinking, social studies,
the arts, and gross and fine motor development. Parents are required to complete the application process, and receive a Certificate of Eligibility and a list of the VPK schools in Broward County, Florida, before their children are made eligible to attend VPK (Broward County Schools, 2009).

In addition, parents who become involved in the Florida First Start or Head Start Programs participate in a school readiness course for parents and their infants. The early intervention provides parent education and family support. School personnel visit homes to inform parents about nutrition, safety, dental care, child development and discipline. Some parents also learn activities to do at home with their children and are allowed to borrow toys and books from their library department. The program provides evaluation and development screening for children as well as weekly group learning activities in their Resources Center. Low income families in Broward County also take advantage of the Head Start program. The federally funded program provide educational, social, medical, dental, vision, nutritional and mental health services for 3-year-old students. The children’s learning experiences include activities to enhance intellectual, social and emotional growth. Parents received training and support to help with the development of their children through the Head Start Program (Broward County Schools, 2009).

**Research in Parental Involvement**

The main objective of research done by Lin (2003) at the Harvard Family Research Project was to provide a greater understanding of the significance between parental involvement instructional practices and kindergarten children’s early literacy. The research questions from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999, included the following;
1. What were the types of parenting practices that were related to children’s early literacy in reading, math, and general knowledge performance at the end of the kindergarten year?

2. How did the relationship between parent involvement and early literacy vary for children from different racial/ethnic and income backgrounds?

Many researchers credited the study done with 17,000 first time kindergarteners and parents who were involved in home literacy, cognitive experiences and extra curricular learning activities as significant. The results reinforced the theory that parental involvement is important for early literacy skills in reading, mathematics and general knowledge (Pianta & Cox, 2002).

**Parental Concerns**

The transition to kindergarten from preschool is a stressful experience for both parents and students. Some parents pass on their anxiety to their children about leaving them alone at school. Some children are usually crying hysterically and clinging to their concerned parents. Sometimes, even after much reassurance to return after school, the parents manage to tear themselves away from screaming children. However, for the students, who are reluctant to take the first step towards social independence, the anxious behavior persists for weeks. As a result, some kindergarten teachers have the mammoth responsibility of creating a learning environment that is inviting to aid a smooth transition to kindergarten (Morgan, 2007; Pianta & Cox, 2002).

Graue and DiPerna (2000) brought awareness to parental concerns that related to the age effects of kindergarteners. Some students who would not be 5 years old before the September 1 cutoff date were not allowed to attend school until the beginning of the next school year. That created additional expenses for some parents who had to spend money for an additional year of accommodation in a preschool or keep them at home. In
addition, some children were disappointed and developed low self-esteem and behavior problems that were perpetuated when they began school. Interestingly, some children would not graduate from high school until they were 19 years old, so some parents tried unsuccessfully to get their own children promoted to the first grade. As a result of Elkind’s discoveries, school districts revisited their cutoff date policies and its impact on academic redshirting. The matter had attracted much controversy, but some school districts reviewed each individual case and allow some parents to request late entrance for their children when they reach 5 years old (Sailer, 2005).

**Media Influence at Home**

The world is saturated by influences of multiple media, the Internet, video games, films, recorded music, videotapes, interactive computer software, and fast-paced television. Many believe that media is mostly for entertainment and less about disseminating literacy skills (Williams, 2007). However, according to the American Academy of Pediatrics (2001), media impacts the learning experiences of children as it provide opportunities for observation, imitation and formulating learning behaviors of their own. The influence increases as new, innovative and more sophisticated types of media are developed and made available to the American public at affordable prices. Therefore, some children are able to use the media to learn early readiness skills, enrich their education, view or participate in discussions on social issues, and gain exposure and entertainment through music and performance.

On the other hand the media sensationalizes violent behaviors, introduces and exposes students to explicit sexual content, promotes unrealistic body images and poor health habits, and targets viewers through advertisements. It cannot be concluded,
however, that some kindergarten students who learn from media and technology influences had the appropriate skills to critically analyze and evaluate any negative messages. Some students are media illiterate and lack the skills to communicate their thoughts or ask questions about their experiences. Parental monitoring, guidance, boundaries and constructive communication are essential to maximize the positive effects of television watching (Deihl & Toelle, 2009).

In 1990, Congress ratified the Children’s Television Act (CTA) to increase the children’s educational and informational television programming. In 1996, the Federal Communications Commission passed a regulation requiring television stations to provide at least 3 hours of children’s educational programming each week (Mifflin, 1996). As a result, the Public Broadcasting Service (PBS) has a wide variety of learning experiences that serve to solidify the early literacy skills (e.g., programs such as Sesame Street, Dragon Tales, Between the Lions, and Reading Rainbow). The experiences teach concepts of letters and sounds, numbers, as well as critical thinking and pre-reading skills.

Many educational media enhance the interpersonal, social and cognitive skills and provide fundamental for the reading success of some preschoolers. The early exposure to age-appropriate educational media also enhances the cognitive and academic achievement of children. It helps some children develop valuable attention span, comprehension skills and a good understanding of characteristics such as intelligence and gender. Some children were able to transfer and apply the knowledge gained from educational media to real-life situations including reading and writing. Online virtual schools also provide distant education for some preschoolers and kindergarteners that
prepare them for continued formal education (Kirkorian, Wartella, & Anderson, 2008; Westneat, 2006). The curriculum include creative play, and crafts to meet the interest and abilities of students at each development stage as well as coking experiences and opportunities to develop creativity skills and self-confidence (Striar Hebrew Academy, 2008).

**Preschool Readiness Program**

Young children in the United States begin preschool between ages 2 and 5. Academic preschool programs promote the skills and concepts that will help young children develop early reading literacy. Most experts believe that that preschoolers should be able to identify the front and back of a book, track words in a book from left to right, identify letters and sounds, recognize the difference between words and letters, demonstrate team work, play fairly, accept being away from parents and siblings for an extended time, listen to authority figures, have good listening skills, and follow instructions (Bishop, 2003; Catts, Fey, & Zhang, 2001; Strickland & Shanahan, 2004).

Preschool programs should allow students to experiment with letter writing until they are able to write standard letters. However, there is not much similarity among preschool curriculum. Some focused mainly on social and physical skills rather than on academic concepts. Consequently, play and sleep take precedence over academic skills. Preschools with a more comprehensive curriculum include skills like concepts of size, colors and shapes, numbers, reading readiness, position and direction, time, listening and sequencing, motor skills and social-emotional development (Foorman & Saez, 2008).


**Reading Deficiencies**

Deficiencies in some children’s reading readiness result in language, cognitive development delays or physical impairment. Some students with deficiencies in reading display specific observable characteristics, including the inability to recognize size, shape, and color. The students have distorted concepts of their body image, are hyperactive, and display poor visual motor coordination. The students complete work slowly, write and read words in reverse order and have poor organizational skills. The students do not express their thoughts clearly, have poor peer relationship and social skills, were easily frustrated, lack proper language and motor skills and do not behave appropriately in a number of situations. The students are easily distracted and have difficulties adjusting to changes and making decisions. Some children with limited opportunity to learn language, and develop other higher order cognitive processes, lack the ability to solve problems and think independently (Guerra, 2004).

It is not clear what specific factors are associated with learning disabilities. However, according to Myers (2001), some information was gained when the behavior of students with learning disabilities was observed. Some students had difficulties interpreting what they were seeing or hearing as they performed tasks or watched their peers. The inability to respond positively is the result of disorder in the nervous system as well as differences in maturity and development. The learning deficiencies are also the result of genetic genes from their parents, premature development or injuries experienced at birth. Deficiencies in children’s reading readiness result in language, cognitive development delays and physical impairments.
Factors That Cause Reading Readiness Deficiencies

**Lack of parental involvement.** One of the factors that influenced some students’ learning deficiencies was the lack of parental involvement in the educational process of their children. When some parents did not provide literacy experiences at home, it impacted and damaged reading ability (Shaw, Bell, & Gilliom, 2000). Some parents did not believe they needed to help students with homework. Others were unable to help because of the level of their education, their preoccupation with work, or they were too tired to help after work (Green, 2003).

According to the U.S. Department of Labor’s Bureau of Labor Statistics (n.d.), adults 35 to 64 years old were reading only 12 to 30 minutes a day. The National Endowment for the Arts (2007) stated that Americans were no longer setting literacy examples for their children as they were reading far less than in the past. In 1982, 60% of 18- to 24-year-olds read novels outside school or used the library, but that percentage diminished to 43% in 2002. Some adults have lost the habit to read books, magazines, and even the daily newspaper. Television and the advancement of some computers and video games have been held responsible for the decline in the love and desire to read.

Interestingly, the circulation of major newspapers declined 2 to 3% each year since 2005 and 2007 in the United States. The One Book program, launched in Washington in 1998, tried to restore the love of reading by creating forums for adults to read and talk about the same book together. However, efforts including those by book club personnel have not been as successful as originally proposed. Some children imitate the examples demonstrated by adults at home and are not motivated to read or learn to read.
According to The CEO Forum on Education and Technology (2001), digital-age literacy, inventive thinking, and effective communication are necessary skills for the 21st century. The report includes multimodal communication that helps some students take advantage of new interactive learning pathways. The devices use digital visual imagery and sound to make connections with the world outside school. The devices help to enhance higher-order thinking skills as well as personal and social responsibilities (Weis, 2004). However, when some students continue to miss out on regular reading experiences at home, their deficiencies adversely impact the nation’s literacy development (Clemmitt, 2008).

**Poor socioeconomic status.** Poverty and instability of low income families also contributed to learning deficiencies. According to the U.S. Census Bureau (2008), in 2007, there were 7.7 million poor families in the United States. Most were single-parent families, in which the female received wages that is 30 to 50% lower than males with the same educational background and work load. According to Leroy and Symes (2001), at least one in five of American preschool child grow up in poverty and experience delays in language and reading development. The delays result in aggression, social withdrawal, substance abuse, and depression. Some students in poverty lack the ability to concentrate or focus as well as school readiness skills. Formal learning requires the knowledge of syntax and vocabulary of formal language which they did not likely receive in their home environment. The homes of some children in poverty lack organization and materials for building literacy experiences (Payne, 2005).

Poverty makes it unlikely to afford medical care health insurance or nutritious food, and unattended health issues impede learning. Some parents with limited education,
drug addictions or mental illnesses cannot provide books for their children or afford preschool for their young children. On the other hand, those with children who are eligible for Head Start have clothing or transportation issues, and are too proud to take advantage of assistance available at the school (Payne, 2005; Thornburg et al., 2002).

Students who enter school with limited language experiences perform at a lower level than their counterparts. They are physically aggressive, disrespect authority, and lack organizational skills and the ability to fit in to adhere to the rules of the middle class (Farquhar, 2005; U.S. Department of Education, 2007). A 2010 survey by the National Center for Education Statistics showed serious deficiencies in children’s ability to read. More than two thirds of fourth-graders in high poverty schools were unable to read at the basic level. Students in America have the opportunity to begin to develop intellectually, socially, physically, and emotionally and gain knowledge, and the love for learning, in homes that have comfortable surroundings (Leroy & Symes, 2001).

**Poor socio-emotional development.** Socio-emotional development refers to patterns of behavior that are expressed by distress, excitement, joy, surprise, sadness, disgust, anger, and fear. Students who have socio-emotional problems may have been exposed to domestic violence, problems at home, depressed parents, or stressful situations that include poverty (Burgess, 2005). Exposures to those situations make the students immature, have high levels of anxiety and fear, and lack self-esteem and the motivation to learn. The students are disruptive, inattentive and invariable, and have little or no friends for meaningful interaction (Lane, O’Shaughnessy, Lambrose, Gresham, & Beebe-Frankenberger, 2002; Taylor, Hasselbring, & Williams, 2002; Thurber, 2007).
Physical development. Some students with deficiencies in physical development cannot learn effectively. Students’ muscles, gross and fine motor skills lack the coordination to allow them to cut on a straight line, scribble, color, draw pictures, run, jump, climb, kick balls, use tools, move to music, pedal, tear, or stand in line independently. The poor physical development also impedes the eye-hand coordination needed to follow pattern of words in reading text (“The Learner,” 2001).

Cognitive development. Cognitive development relates to how children think and interact with others. Deficiencies in cognitive development retard a student’s ability to analyze classify, understand concepts, solve problems, and learn to read. Some students, who have cognitive or intellectual development deficiencies are unable to learn, explain or reason well (“The Learner,” 2001; Woolfson, 2008). The deficiencies are the result of attention deficit disorder (ADD), dyslexia, or delays in the development of the cerebral cortex that controlled attention span and motor skills. Some students with ADD are restless, impulsive and inattentive. Dyslexia is associated with reading retardation that affects about 5% of all school-age children in public schools in the United States (Child Development Institute, n.d.). Some students suffering from dyslexia are often frustrated, anxious, and uninterested in learning as they have difficulties speaking, understanding, pronouncing, processing words, and hearing or identifying the differences in letter sounds (Harrie & Weller, 1984).

Assessing Reading Readiness Deficiencies

Prior to 2006, the Florida Department of Education assessed the readiness skills of all kindergarten students with the School Readiness Uniform Screening (SRUSS). However, the assessment was replaced with the Florida Kindergarten Readiness Screener
(FLKRS) in 2006. The current kindergarten assessments are done by the Early Childhood Observation System (ECHOS), and the Florida Assessments for Instruction in Reading (FAIR). FAIR tests students’ readiness skills and indicate their strengths and weaknesses. The results of these assessments determine the remediation strategies for low performing students (Florida Department of Education Office of Early Learning, 2006).

Another assessment used in longitudinal studies of kindergarten children, is the National Center for Educational Statistics (NCES) test. That assessment was administered in 1998 and assessed the knowledge, skills, health, behaviors, and literacy development of students entering kindergarten. In addition, the Metropolitan Readiness Test (MRT) is used in some states to predict the abilities and competence of children in kindergarten through to the second grade. It assesses students’ development of language and mathematical skills that are required for early learning. In addition, the Reading First analysis compare the skills of students attending half day and whole day kindergarten and provide grants to improve literacy instruction of Florida’s K–3 students (Lefsky & Foorman, 2008).

**ECHOS and FAIR**

The Early Childhood Observation System (ECHOS) is an observation instrument of the readiness skills of kindergarten students. It is done within the first 2 weeks of school and provides helpful information for grouping and curriculum. The Florida Assessments for Instruction in Reading (FAIR) tests phonological awareness, vocabulary, phonemic awareness, letter knowledge, and listening and reading comprehension of students. FAIR also identifies kindergarten students with the risks of reading difficulties. The results predict the students’ performance on standardized tests to be done in first and
second grades as well as the Florida Comprehensive Assessment Tests (FCATs) done in third to fifth grades in elementary schools. Diagnostic inventories from FAIR are linked to Florida standards and indicate areas of instructional needs (Just Read, Florida! & Florida Center for Reading Research, n.d.). Mastery is determined by percentage scores and indicates the likelihood of students’ success on standardized tests in successive grades. Table 2 indicates the percentages and the predictions on the standardized tests.

Table 2. Success Zones of Probability of Grade-Level-or-Above Test Performance

<table>
<thead>
<tr>
<th>Zone</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>85% or better probability of grade level or above performance on SASAT/SAT-10/FCAT</td>
</tr>
<tr>
<td>Yellow</td>
<td>16–84% probability of grade level or above performance on SESAT/SAT-10/FCAT</td>
</tr>
<tr>
<td>Red</td>
<td>15% or less probability of grade level or above on SESAT/SAT-10/FCAT</td>
</tr>
</tbody>
</table>

*Note. Just Read, Florida! & Florida Center for Reading Research, n.d.*

Florida’s legislature states that students’ progression from one grade to another is dependent on proficiency in reading, writing, science, and mathematics. Standards for the subjects are mandated by State Board of Education and the proficiency is assessed each year by the Florida Comprehensive Assessment Test (FCAT). Although kindergarteners are exempted from the FCAT assessment, the level of readiness with which they begin school will impact their performance on the test and determine their promotion or graduation status (Florida Department of Education, 2002).

Although there is insufficient evidence to support the claim that standardized tests are valid, credible, and free from bias, they provide information of students’ ability to
read, comprehend, meet Sunshine State Standard and use critical thinking skills. To avoid assessment biases, the No Child Left Behind Act have given the political control of schools’ standardized testing to state and federal government bureaucrats, test experts, and to private contractors. In addition, meeting the annual yearly progress (AYP) depends on the gains students make on the standardized tests. Failure to show gains on the FCAT tests in successive years, results in the reduction of federal funding and the replacement of school personnel (Berlak, 2005).

Children who are immersed in reading experiences prior to kindergarten will have greater chances for success in reading in successive years. Early research indicated that specific readiness skills are prerequisites for learning to read. However, today’s researchers believe it is important that those skills are acquired between infancy and the early childhood years. The skills promote the need for daily interaction through interesting activities that help develop the cognitive, socio-emotional, and physical developmental stages. Some preschool teachers and parents need to be aware of their responsibilities and take advantage of the available services and assistance to ensure that students enter kindergarten ready and motivated to begin formal learning (Bronson, 2010).
CHAPTER 3. METHODOLOGY

The purpose of this research was to investigate the factors that contribute to the reading readiness deficiencies of some kindergarten students, to bring awareness to the instructional problem with which some kindergarten teachers are faced every year, and contribute to the existing literature.

Restatement of the Problem

The No Child Left Behind Act of 2001 indicated that all children in the United States should acquire proficiency in reading and math by the year 2014. Children are entitled to equal and high-quality education. Subsequently, each state has organized academic standards and training to help students meet the demands and challenges of proficiency in elementary and secondary education. In Florida, where this study was conducted, the Broward Enterprise Education Portal (BEEP) provide training and relevant resources to help teachers, reading resource specialists, and reading coaches improve student reading abilities and achievement (SchoolWorks, n.d.). The state accountability systems validate the levels of student achievement and determine the measure of monetary support needed each year.

It was evident throughout educational literature, that the literacy skills with which some students enter kindergarten, determined the success or failure they would experience in learning to read (Adams, 1990). Subsequently, some students who entered kindergarten were not ready to begin formal learning as they lacked basic academic and social skills. However, it was not known how and to what extent reading readiness
deficiencies existed in some students who entered kindergarten and how parental involvement contributed to the development of reading readiness skills. This proposed study sought to investigate the factors that contributed to the reading readiness deficiency problems of the students entering kindergarten and brought awareness to the problem that exists in some elementary schools.

**Research Hypotheses and Questions**

There were six research hypotheses and two research questions that guided this study. The six hypotheses were as follows:

- **H1a**: There is a difference in the FAIR scores between kindergarten students who attended preschool and students who attend preschool (H1a: $\mu_1 - \mu_2 \neq 0$).

- **H1o**: There is no difference in the FAIR scores between kindergarten students who attended preschool and students who did not attend preschool (H1o: $\mu_1 - \mu_2 = 0$).

- **H2a**: There are differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more years (H2a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

- **H2o**: There are no differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more years (H2o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

- **H3a**: There is a difference in the FAIR scores of kindergarten students between male and female students (H3a: $\mu_1 - \mu_2 \neq 0$).

- **H3o**: There is no difference in the FAIR scores of kindergarten students between male and female students (H3o: $\mu_1 - \mu_2 = 0$).

- **H4a**: There are differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

- **H4o**: There are no differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

- **H5a**: There are differences in the FAIR scores of kindergarten students whose parents had less than high school diploma; high school diploma, less than 4 years, and 4 or more years of college education (H5a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).
H₅₀: There are no differences in the FAIR scores of kindergarten students whose parents less than high school diploma; high school diploma, less than 4 years, and 4 or more years of college education (H₅₀: μ₁ = μ₂ = μ₃ = μ₄).

H₆₀: There are no differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H₆₀: μ₁ = μ₂ = μ₃ = μ₄).

H₆₀: There are no differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H₆₀: μ₁ = μ₂ = μ₃ = μ₄).

In addition, the followings research questions were used for guiding this research as well

1. What were the commonly displayed readiness deficiencies among students at the beginning of their kindergarten year in a Florida school?

2. What types of parenting practices do parents have for kindergarteners whose FAIR scores are above average?

**Research Methodology**

Mixed methodology was chosen for this study in order to provide a substantial evaluation of this investigation. The mixed method approach diminished the sole reliance on one method or data source, presented a richer understanding of the data and utilized the strengths of both quantitative and qualitative approaches (Paterson, Henry, O’Quin, Ceprano, & Blue, 2003).

Mixed-method research offered the potential for deeper understandings of the research question and attempted to bridge the rifts between qualitative and quantitative designs (Viadero, 2005). The method allowed the researcher to draw from the strengths of quantitative and qualitative paradigms and minimized their weaknesses in one study. Mixed method opened the potential for future research of a specific topic and helped to advance the concepts and paradigms (Johnson & Onwuegbuzie, 2004). In this study
mixed method were used to gain a comprehensive understanding of kindergarteners’ reading readiness deficiencies in a Florida rural community school.

Quantitative approach was essential to analyze, interpret, and justify the data relating to the significant relationship between parental involvement and the FAIR reading readiness scores of their children. The approach indicated the difference in the FAIR scores of kindergarten students who either attended or did not attend preschool. Quantitative approach was needed to formulate conclusions and provide content and narrative interpretations with numerical and statistical data from multiple choice questions to both parents and teachers. The quantitative approach was also essential for the analysis of data from ECHOS observation (Johnson & Onwuegbuzie, 2004; Luttrell, 2005).

The qualitative approach provided information to help develop a theory of insights relating to why students entering kindergarten lacked reading readiness skills. Data from both of the quantitative and qualitative approaches offered a deeper understanding of the importance of reading readiness skills (Johnson & Onwuegbuzie, 2004). In order to address the concerns of this research a mixed method approach was necessary. The quantitative analysis involved the use of independent t test, and one-way analysis of variance (ANOVA).

**Measurement**

This research project collected primary data from questionnaires administered to the parents as well as data collected from school records. The advantage of such a process is that it allows the researcher to measure more precisely the intended concept rather than to attempt to adjust one concept to a set of prepackaged variables.
Dependent Variable

The dependent variable in this study was defined as FAIR scores. Those scores indicated the students who were ready for formal learning in kindergarten, as well as those with reading deficiencies.

Independent Variables

The independent variables included the following:

- Race: Students who were identified as White were given a score of 1, Black 2, Asian 3, and Hispanic/Latino 4.
- Gender: Students were identified as either male (1) or female (2).
- Attend preschool: A score of 1 indicated that the student did not attend preschool, and a score of 2 identified students who attended preschool before entering kindergarten.
- Years in preschool: Students’ scores were labeled as did not attend preschool = 1, approximately 1 year = 2, 2 years = 3, and 3 or more years = 4.
- Parents’ educational attainment: Parents who did not finish high school were labeled less than HSD and given a score of 1, parents who completed high school were labeled HSD and given a score of 2, parents who had some postsecondary education but had not completed a 4-year degree were labeled less than 4 years of college = 3, and parents who completed at least a 4-year degree were labeled 4+ years = 4.
- Parental support: This variable was the product of the computation of eight variables: Read to, Pretend, Teach, Talk with, Play with, Watch television, Child writing, and Library visits. In attempting to answer the research questions, the initial construct parental support represented a continuous measure and was then categorized to reflect a categorical measure of the present construct, with 1 indicating not very supportive, 2 not supportive, 3 supportive, and 4 very supportive.

Research Design

The nature of this study was a combination of quantitative and qualitative methods. The mixed approach was chosen as the best way to triangulate or combine the
methodologies to fit this particular area of study. Proponents of quantitative research methods tended to criticize qualitative methods because of the lack of numerical data to explain and provide proof of the researcher’s examination of the problems. However, mixed methodologies highlights the significant contributions of each method and provide a more comprehensive and analytic summary of the study. Mixed methods is a dynamic, transactional process and nonexperimental approach that enriches, understands and examines belief systems, behaviors, meanings, knowledge, goals, practices and intentions (Yoshikawa, Weisner, & Kalil, 2008).

The decision to use mixed methodologies was also based on the U.S. Department of Education’s current emphasis on using randomized field trials to get a deeper understanding of some of the education questions that related to what works best in schools and classrooms. Mixed method research provides opportunities for sound and completed evidence and helped to enhance the evaluation, gives a better report of what, how and why the problem occurred, and provided richness and details for the study (Viadero, 2005).

**Qualitative Approach**

The generic qualitative approach was used for the analysis of data collected from teacher questionnaires (Appendix A) and student ECHOS observations. This approach was used to understand what was responsible for the situation within the school environment.

**Quantitative Approach**

The quantitative data included the initial FAIR kindergarten scores, and data collected from parent questionnaires (Appendix B) and Research Questions 1 and 2. The
FAIR scores were used because they provided good indication of the students who were either ready or not ready for formal learning. The scores which were available to kindergarten teachers during quarterly data discussion sessions with the school’s administration indicated the areas of instructional needs for each student.

**Population and Sampling Procedure**

The students for this study were kindergarteners at an elementary school in Florida. The 5- and 6-year-olds and were expected to attend at least 1 year of Head Start, VPK, or 2 years of preschool. Data was collected from approximately 135 students who were from high-, medium-, and low-income families. Seventy percent of the students were Black and the other 30% were from White, Asian, Indian, and Hispanic families. The population consisted of more boys than girls.

The kindergarten teachers who volunteered in this study represented a wide cross-section of ethnic groups. Fifty-five percent of the teachers were Black, 30% were White, 10% were Hispanic, and 5% were Asian. Three of the kindergarten teachers were veterans with more than 10 years of teaching experiences. Three had taught for 3 years and the remaining two were new teachers. Except for the new teachers, all the others have master’s degrees and one is working towards becoming a principal. Professional development is held each week to empower and support teachers, and to discuss best practices including differentiated instruction and innovative strategies to enhance instruction and learning. The sessions allow teachers to share areas of concern and provided mentoring assistance for new teachers.

The parents who volunteered to participate in this study were from a population of middle to low income families. The majority of parents were Black, 20% were White, 5%
were Hispanic, and 2% were Asian. Approximately 45% were single parents who were solely responsible for providing for a family with at least three children below the age of 15. Thirty percent were under 30 years old and 55% were employed. The volunteers were introduced to the need for the study during Parent Night activities. Letters containing additional information about the study, as well as details about the participating process were distributed during that night. Inquires and concerns were also addressed during that session. In addition, questions were answered during individual parent teacher conferences. Questionnaires (Appendixes A and B) were distributed only to parents and teachers who returned the completed consent information.

**Research Setting**

The elementary school is located in a small city of Broward County School District in Florida. There are nine kindergarten classes in the Title I school. Each classroom has one teacher and approximately 18 students. Round and rectangular tables and metal chairs are used in a print-rich classroom environment. Each kindergarten classroom has a word wall; reading and writing centers; educational games; toys; puzzles; a library of age-appropriate books; and several big books for circle-time, small-group, and shared reading experiences. There are at least six working computers in each classroom, and students take turns working on programs to reinforce and test reading and mathematics skills. There is also a television set and software and equipment for listening to stories and music. Other equipment including those for play to help build motor skills as well as enhance learning experiences in science, social studies, and writing.
**Instrumentation**

The instruments used for this study included ECHOS observation and teacher made questionnaires. The ECHOS observation checklist was closely associated to the concerns that teachers in kindergarten face on a yearly basis. The ECHOS checklist was state-mandated observation that was validated by the Florida Department of Education. The teacher questionnaire contained multiple choice questions as well as open-ended questions for perspectives on the characteristics and deficiencies in reading readiness. The questions were based on information derived from literature reviews and teachers’ experiences with kindergarten students. The parent questionnaire consisted of open ended questions that required their opinions regarding their involvement in preparing students for kindergarten. These parents’ questions were created as a result of literature review and parent conference information. The two questionnaires were reviewed by three administrative experts in reading and were revised accordingly.

**Sources of Data**

Data for this study were obtained through the ECHOS observation checklist, teachers and parents’ questionnaires, and scores from FAIR screening test.

**ECHOS checklist.** The School Readiness Uniform Screening required that the ECHOS observation checklist is used by trained kindergarten teachers. Students were observed by their classroom teachers and the data determined if they were consistently demonstrating, emerging or not yet demonstrating readiness skills. Mandated by the Florida Board of Education, the ECHOS measures benchmark in seven domains and provides a uniform method of observing new kindergarteners. This observation was done
within the first 30 days of school. ECHOS was also designed to evaluate children’s previous learning and determine the appropriate instruction for students (Blasik, 2007).

**Questionnaires.** The questionnaire consisted of questions for parents and teachers. The parent questionnaire sought to ascertain perspectives of the reading readiness skills of their children as they began formal reading in kindergarten and related evidences that supported those opinions. The teacher questionnaire acquired opinions about knowledge and observed characteristics of reading readiness skills, as well as perspectives about parental involvement.

**FAIR test score.** The FAIR test was individually administered to students in kindergarten through to the second grade. It was initiated in 2007 by the Department of Education in collaboration with the Florida Center for Reading Research (FCRR) and Just Read, Florida! A pilot study of FAIR was conducted during 2007-08 and 2008-09 school years. A statewide implementation was launched in Fall 2009. FAIR is administered three times a year like its antecedent DIBELS. For students in kindergarten, FAIR predicts success in reading, measures early literacy skills, and identifies students experiencing difficulties in early literacy skills so that remediation can be organized to meet their needs.

This new assessment system was designed to provide teachers with screening, diagnostic, and progress monitoring information that is essential to instruction. FAIR consists of four separate tests namely the Broad Screen (BS) or Progress Monitoring Tool (PMT), Broad Diagnostic Inventory, (BDI), the Targeted Diagnostic Inventory and the Ongoing Progress Monitoring (OPM). FAIR is used to measure skills in phonemic awareness, phonics, fluency, vocabulary, text comprehension and orthographic skills or
spelling. Students were expected to show proficiency in print awareness, letter name knowledge, phoneme deletion, initial phoneme deletion word parts, initial and final letter sound connection, initial and final consonants in word building and medial vowels in word building skills (Foorman & Saez, 2008).

Student test scores were calculated by the number of correct answers in the Broad Diagnostic Inventory (BDI) for listening and reading comprehension. The scores indicated the percentile rank for each student. In the Targeted Diagnostic Inventory, (TDI) the scores either met expectations or fell below expectations. For the Ongoing Progress Monitoring, the scores either met expectations or fell below expectations. Students with scores in the green section had 85% or better chance of scoring at or above the grade level at the end of the year. Students with scores on the yellow section had a 16% to 84% chance of scoring at or above the grade level at the end of the year, and students with scores in the red had a 15% or less chance of scoring at or above the 40th percentile and grade level at the end of the year on the SESAT or SAT-10.

Some of the process of the Florida Assessments for Instruction in Reading (FAIR) was administered by each classroom teacher. The other aspects were done on the computer by individual students without teacher assistance as the process was interactive. FAIR assesses each of the critical elements or skills that lead to success in reading. FAIR assesses skills that help to determine instructional support. The system incorporated assessment and instructional functions, with teacher-friendly and technology-enhanced tools. The scores indicate the number of kindergarteners who were ready for kindergarten (Foorman & Saez, 2008).
Data Collection Procedures

Following the written permission of the review and local school boards, the consent letters and information relating to the study were distributed to parents and teachers. The questionnaires were distributed when the completed letters were returned to the researcher. The volunteers were expected to complete the questionnaires within a 3-week period. The ECHOS checklists were completed at the beginning of the school year in keeping with the mandate from the local school board. The checklist included items that were aligned with the child development domain such as, Approaches to Learning; Social and Emotional; Language and Communication; Emergent Literacy; Cognitive Development and General Knowledge and Motor Development (Moreno, 2008).

The initial FAIR test was done during the first 6 weeks of school in keeping with the school board requirements. The FAIR and ECHOS scores were available to the teachers during data discussion sessions with the school administrative staff. The names of students and parents were required for the analysis of data from the parent questionnaires. The analysis focused on the significant relationships between parental involvements and their children’s readiness scores in the FAIR tests; the significant difference on FAIR scores between kindergarteners who attended preschool and kindergarteners who did not attend preschool; and the types of parenting practices that allowed kindergarteners to score above average on the FAIR tests. To ensure that the data was authentic, the questionnaires were coded. The codes were different for each of the eight classes and included letters and numbers. The letters A to H and the numbers 1 to 18 were used to represent each class. Students within each class were assigned a letter and a number. The students in the class A for example, were assigned A1 to A18. Parents
of students in the Class A had letters and number that were identical to those assigned to their children. Class B students were assigned B1 to B18 coding to correspond with their parents, and so on.

According to the National Education Association (2004), assessing kindergarteners provided data to help teachers identify special needs and provide quality instruction. The data identified students to receive nurturing learning experiences that promoted and supported success in school. The FAIR identifies the risk of reading difficulties and is an excellent predictor of the future reading performance and future achievement of students. As with its antecedent DIBELS, FAIR is an important tool for instruction and intervention for students who needed to acquire early literacy skills. The Broad Screen tasks of the FAIR tests were directly related to Florida standards and predicted the end-of-year performance and outcome measures.

**Data Analysis Plan**

Quantitative and qualitative methods allowed the researcher to provide practical and logical interpretation of data relating to the research questions and hypothesis. The methods used figures and tables to provide statistical analysis, assessment of patterns, and relationships contained in the data (Creswell, 2003).

**Quantitative Data**

Quantitative data were used to answer the following hypotheses:

H_{1a}: There is a difference in the FAIR scores between kindergarten students who attended preschool and students who did not attend preschool (H_{1a}: \mu_1 - \mu_2 \neq 0).

H_{1o}: There is no difference in the FAIR scores between kindergarten students who attended preschool and students who did not attend preschool (H_{1o}: \mu_1 - \mu_2 = 0).

H_{2a}: There are differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more
years of preschool (H2a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H2o: There are no differences in the FAIR scores of kindergarten students who did not attend, attended approximately 1 year, attended 2 years, and attended 3 or more years of preschool (H2a: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H3a: There is a difference in the FAIR scores of kindergarten students between male and female students (H3a: $\mu_1 - \mu_2 \neq 0$).

H3o: There is no difference in the FAIR scores of kindergarten students between male and female students (H3o: $\mu_1 - \mu_2 = 0$).

H4a: There are differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H4o: There are no differences in the FAIR scores of White, Black, Asian, and Hispanic/Latino kindergarten students (H4o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H5a: There are differences in the FAIR scores of kindergarten students whose parents had less than a high school diploma, a high school diploma, less than 4 years of college education, and 4 or more years of college education (H5a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H5o: There are no differences in the FAIR scores of kindergarten students whose parents had less than a high school diploma, a high school diploma, less than 4 years of college education, and 4 or more years of college education (H5o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

H6a: There are differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H6a: $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$).

H6o: There are no differences in the FAIR scores of kindergarten students whose parents were not very supportive, not supportive, supportive, and very supportive (H6o: $\mu_1 = \mu_2 = \mu_3 = \mu_4$).

The names of the students and parents were correlated with corresponding codes in order to determine the significant relationships between parental involvements and their children’s readiness scores in the FAIR test, the significant difference on FAIR scores between kindergarten who attended preschool and kindergarteners who did not attend preschool. In addition, FAIR scores were used to determine the types of parental
practices that parents had for helping their children who scored above average on the FAIR test. The codes were different for each of the eight classes and included letters and numbers. The letters A to H and the numbers 1 to 18 were used to represent each class. The coding was necessary for the statistical analysis of the data.

Statistical analysis tools $t$ test and Pearson correlation coefficient $r$ were used to analyze the quantitative data. Quantitative approach summarized and analyzed numerical data and provided generalizations based on statistical projections (Trochim, 2006).

**Qualitative Data**

Qualitative data were collected in order to answer the following research questions.

1. What were the commonly displayed readiness deficiencies among students at the beginning of their kindergarten year in a Florida school?

2. What types of parenting practices do parents have for kindergarteners whose FAIR scores are above average?

The qualitative methods provided a complete detailed description of verbal and nonverbal behaviors and guided decision relating to further data collection process (Myers, 2001). It included developing themes, reporting and interpreting findings and validating the accuracy and credibility of the data (Creswell, 2003). NVivo software was used to help sort and develop themes.

**Validity and Reliability**

**Validity**

The procedures to determine the validity of the data included drawing conclusions and external validity. The conclusions determined if there was a relationship or significant difference between (a) parental involvements and their children’s readiness
scores in the FAIR test and (b) FAIR scores between kindergarteners who attended preschool and kindergarteners who did not attend preschool. The scores helped to provide accuracy of measurement and strengthened the conclusions. The external validity provided useful information to determine if the results could be used for other kindergarten classrooms throughout Florida as well as in other states. The Probability of Reading Success (PRS) was generated by the K Electronic Scoring Tool (EST) and submitted to Progress Monitoring Reporting Network (PMRN). If a student received a Probability of Reading Success (PRS) less than 85%, the K EST assigned the Targeted Diagnostic Inventory (TDI) tasks to the student. When a student received scores below expectations on a Targeted Diagnostic Inventory (TDI) task, the K EST ended the Targeted Diagnostic Inventory (TDI). Students scoring in the 85% or higher were in the low-risk and high-success zone. Students scoring 16 to 84% were in the moderate success zone and were at moderate risk. The students who scored 15% or lower were in the high risk and low success zone (Lee County Public Schools, 2009).

FAIR is a standardized assessment that individually measures the phonological awareness. FAIR is a useful benchmark for schools and school districts as it (a) predicts early reading success for individual students, (b) identifies the early intervention in order to prevent early reading difficulty, (c) measures the construct of early literacy, (d) identifies those children who need additional instruction and support relating to the requirements of the No Child Left Behind Act, and (e) modifies instruction on an ongoing basis to ensure that students show progress. FAIR is a moderate predictable of validity and reliability (Bakerson & Gothberg, 2006; Foorman & Saez, 2008; R. H. Good & Kaminski, 2002; R. H. Good, Kaminski, Simmons, & Kame’enui, 2001). To provide
validity of both questionnaires, the questions were reviewed by three reading experts in the field of education. The experts indicated that the questions were valid for the purpose of the research project (Borg, Gall, & Gall, 2003).

**Reliability**

The procedures that were used to determine the reliability of the data collected was internal consistency. The decision to use internal consistency was primarily because the observational checklist and the questionnaires to parents and teachers administered only once. Questions that related to the concepts in both questionnaires were grouped together. The reliability was determined by the correlation between the responses in the groups. The ECHOS observation checklist required students to show how ready they were for formal learning in kindergarten. Some aspects of the checklist required them to demonstrate actual ability and knowledge of (a) letters and sounds, (b) rhymes, (c) sight words, (d) appropriate way to hold a book for reading, (e) colors, (f) shapes, (g) sizes, (h) numbers, and (i) names. Other aspects required students to demonstrate their social, motor, and socio-emotional skills. Extraneous interferences that impeded students’ ability to demonstrate what they know and could do incorporated personality and physical limitations. Students were not socially independent and struggled with activities requiring fine and gross motor skills. Using a pair a scissors, writing, coloring pictures, catching a ball, climbing a ladder, tying shoelaces, or unbuttoning clothes for bathroom were all challenging experiences. The ability to share, get along with others, or listen to story was not without constant interruptions. However, a valid observation only required knowledge or skills that were relevant to what was actually being assessed (North Central Regional Educational Laboratory, n.d.).
According to Aiken (1994), for a test to be considered at least minimally reliable, its statistical reliability had to be equal to or exceed 0.80. The Comprehensive Assessment System of the FAIR assessment is administered three times each school year to the same students. FAIR measures exceeded the .85. Each section of FAIR assessment had excellent reliability, as it covered material in the curriculum. The value was compatible with the estimate for the Comprehensive Test of Phonological Processes (CTOPP) Phonemic Elision task that had a .93 overall reliability (Afflerbach, 2007).

To help with the reliability of the questionnaires, the completion procedures were included in the consent letter as well as the top of each questionnaire. Participants were volunteers who completed and returned the consent letter. Volunteers, who completed and returned the questionnaires within a 2-week time frame, were expected to give honest answers (Borg et al., 2003).

**Ethical Considerations**

This study was conducted in the kindergarten classrooms within regular settings and schedules. No student was harmed in this study as the process involved teacher observation. Students were not moved from their seats or disturbed while involved in regular activities or class sessions. Students were neither interviewed nor questioned during the process. ECHOS Observations were done daily by the kindergarten teachers for a period of 2 weeks and the information was tabulated by the Harcourt Assessment Center and the Florida Department of Education Office of Early Learning. The data was made available to school personnel as well as the kindergarten teachers. The data collected from ECHOS and questionnaires will be kept in a safe location for at least 5 years after the dissertation is completed and approved. After 5 years, all the data will be
shredded and destroyed. Teachers and parents were allowed to withdraw from the study without penalty or explanation.