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Do Prekindergarten Teachers Design Their Classrooms to Enhance Early Literacy?

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Do Prekindergarten Teachers Design Their Classrooms to Enhance Early Literacy?

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Special Education and Habilitative Services

by

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B.G.S., University of New Orleans, 1999
M.A., Louisiana State University, 2001

December 2010

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DEDICATION

This dissertation is dedicated to my daughter, Kathryn, who taught me the importance of being a strong advocate for children who need support. Her presence in my life jumpstarted my interest in early childhood special education and has continued to inspire me to reach all my goals. I could not have accomplished it without her everlasting confidence, support, and love.

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ABSTRACT

Young children develop language and early literacy interactions that are the building blocks for future skilled reading. This study was designed to evaluate the early childhood classroom to determine teachers' knowledge of early literacy.

Based on the Literacy Environment Checklist (LEC) of the Early Literacy and Language Classroom Observation (ELLCO) tool, the classrooms scored 100% proficiency in the Book Area and Book Selection categories. The results indicate the prekindergarten teachers knew how to design their classrooms to enhance early literacy. The classrooms scored 86% proficiency in the Writing Materials category, 73% proficiency in the Writing around the Room category, and 58% proficiency in the Book Use category. These results indicate that the teachers did not utilize early literacy materials or did not have necessary early literacy materials in the classrooms. Many of the teachers had minimal early literacy training. Without specific early literacy training, teachers did not design their classrooms in ways that would enhance early literacy.

Key words: early literacy, classroom design, prekindergarten teacher training, teacher training.

CHAPTER I

INTRODUCTION

Statement of the Problem

The preschool years are a critical period because this is when children develop language and early literacy interactions that are the building blocks to augmented reading (Foorman & Moats, 2004; Lyon & Chhabra, 2004). By the age of four, children typically acquire knowledge in phonology, grammar, word meaning, and the social and communicative use of language (Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001).

Research (Lyon & Chhabra, 2004) indicates that preschool children who are identified as at-risk for reading failure and are provided with interventions in early literacy skills develop enhanced reading abilities. Furthermore, other research studies (Lyon, 2002; Whitehurst, Zevenbergen, Crone, Schultz, Velting, & Fischel, 1999) indicate that children who attend more academically oriented preschools, not just daycare-type schools, are more successful in reading, math, and general knowledge. In other words, children who are exposed to a language-rich environment are more competent in basic skills than those who are not.

If early identification and intervention are to be effective, teachers must be trained to teach preschool children early literacy skills and to identify children at-risk for reading failure. Interventions that improve teacher knowledge of early literacy, early literacy skills for young children and early identification can make the difference between success and failure for a child who is at-risk for reading failure (National Research Council, 1998). Because preschool teachers are pivotal in teaching reading skills, they must understand how reading develops, how to identify children at-risk, and how to teach reading programs (Lyon & Chhabra, 2004). Also, preschool teachers must incorporate phonological awareness instruction into their classroom

curriculum and to organize the classroom design to enhance early literacy (Smith & Dickinson, 2002). Thus, preschool teachers must receive appropriate training in early literacy techniques, curricula, and classroom design.

Considering the vast research in growth and development, a reluctance to identify a child at-risk in preschool may be an injustice to the child, the family, the school system, and society. When educators, administrators, and families have an understanding of the child's needs and the benefits of early intervention, the child has a better chance for future success.

To increase the overall reading achievement of American school children, multiple procedures must be put into place. According to McCardle, Scarborough, & Catts (2001), four steps must be taken. First, a reasonably accurate method of predicting which children are at-risk for reading difficulty (such as Recognition and Response) must be established. This method must be designed to include preschool children who have not been taught any reading skills. Second, clear guidelines must be established based on empirical evidence of the understanding of reading difficulties and of the kinds of intervention that are most effective in preventing reading problems. Third, reading interventions and instructional programs must be studied in varied school environments. Fourth, teachers must be thoroughly trained in evidence-based reading instruction at preservice and inservice levels. This study will investigate teachers' knowledge of early literacy and how that knowledge was applied in designing the classroom to enhance early literacy.

Theoretical Framework of Early Literacy

A body of research from the last two decades emphasizes the importance of early literacy experiences. Understanding the theoretical framework of early processes of reading development and appropriate instruction is important for educators.

Social Cognitive Theory

Bandura's social cognitive theory proposes a "multifaceted causal structure" (Bandura, 1997, p. 34) that addresses the development of capabilities and the ability to regulate behavior. Knowledge formation serves as the rules and strategies of action that guides behavior (Bandura, 1997). Cognitive knowledge is particularly important in the early and intermediate phases of skill development because the knowledge formation specifies which subskills are needed to fulfill a particular action. Practice is important to fully integrate and execute skills with ease.

Social cognitive theory posits that human behavior is determined by many interacting factors, not just one factor. According to Bandura (1999), behavior is not shaped or controlled solely by environmental influences or by internal characteristics. As such, people contribute to, but do not determine, what happens to them (Bandura, 1997). This transactional view, known as Triadic Reciprocal Causation (Bandura, 1997), incorporates self and society; internal personal factors of cognitive, affective, behavior, biological events; and environmental factors that all function as interacting causations that influence each other bidirectionally. In this case, reciprocity does not mean that all three sets of interacting causations have equal strength. Their influence varies for different activities and under different circumstances. Also, it takes time for each causal factor to have any influence because they do not act simultaneously (Bandura, 1999).

Bandura (1999) states that the environment is "thrust upon people" (Bandura, 1999, pp.23) whether they like it or not. Although people often have little control over their environment, they do have some latitude in how they perceive it and react to it. Environments are not waiting to happen. Instead, people construct social environments and institutional systems through their own effects. Thus, environments that people actually experience depend on how they behave (Bandura, 1999).

For this study, Triadic Reciprocal Causation involves the relationships of behavior – early literacy; personal factors – the child; and external environmental factors – the prekindergarten teacher and the classroom. (See Figure 1.1). Simply put, teacher knowledge of early literacy and the classroom design affect the child’s ability to learn to read (Casbergue, McGee, & Bedford, 2007). The prekindergarten teacher must have knowledge and understanding of early literacy skills that are needed for a child to learn to read. The child must be in an environment that is conducive to learning in general and to learn to read in particular. Although all these factors are needed, they are not simultaneously equal. For example, classroom design is important, but if the prekindergarten teacher is not knowledgeable about how to incorporate the classroom design into the curriculum for early literacy, neither the classroom design nor the teacher is effective. The child’s behavior of learning to read is conditional on the success of the classroom design and the teacher’s knowledge of early literacy.

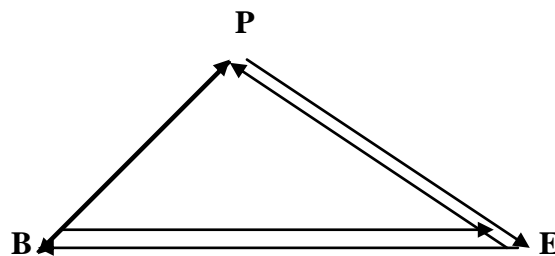


Figure 1.1. Triadic Reciprocal Causation. The relationship between three major classes of determinants in triadic reciprocal causation. B represents behavior, or early literacy; P represents personal factors, or the child; E represents the external environment, or the prekindergarten teacher and the classroom.

Developmental Psychology – Vygotsky

Today’s concept of early literacy is consistent with Vygotsky’s theoretical principles (Mowat, 1999). Vygotsky reasoned that children learn more when assisted by an adult or a peer. He called this the zone of proximal development (ZPD) (Kozulin, 1934/1986). Initially, ZPD requires maximum support and assistance, and then the support is reduced as needed (Bodrova &

Leong, 1996). The assistance can be providing hints and clues, rephrasing questions, asking the child to repeat what was said, having the child describe what she understands, or demonstrating the task (Bodrova & Leong, 1996). In addition, the assistance can include organizing the environment to facilitate the practice of a specific skill. For example, the teacher can label sorting trays to help the child learn to sort (Bodrova & Leong, 1996).

Moreover, the ZPD is different for each child. Some children need every possible type of assistance to make even the smallest progress in learning. Other children may only need a small amount of assistance and make large gains in learning (Bodrova & Leong, 1996). When a skill is outside the child's ZPD, the child generally ignores, fails to use, or incorrectly uses the skill. The teacher must carefully observe "which prompts, clues, hints, books, activities, or peer cooperative activities have a desired effect on the child's learning" (Bodrova & Leong, 1996, p. 39). The teacher needs to be vigilant to note if the child cannot perform at the expected higher level of the ZPD. Then, the teacher needs to rethink the support that has been provided. According to Bodrova and Leong, (1996, p. 41) "The skill may be outside the child's ZPD or the type of assistance provided is not useful and should be modified." The ZPD provides the teacher with a guide to assess what support to provide and how the child will likely respond to the support.

Children may develop learning problems when they are pushed into completing tasks before they are able to do so. These academic demands may cause failure by requiring students to perform before they are ready or able (Lerner, 2003).

Vygotsky (1934/1986) also states that "the only good kind of instruction" (1934/1986, p. 188) is that which is "ahead of development and leads it" (1934/1986, p. 188). Instruction should be aimed at the "ripening functions" (p.188) rather than those that are already ready. If a

child's ability is not on par with the instructional level, there is no learning (Lerner, 2003), thus, intervention, or ZPD, is needed.

In addition, Vygotsky (1966) theorized that play allows a child to go beyond the limits of the immediate stimulus and to learn to use symbolic, abstract levels of thought. How the classroom is designed makes the difference in how a child moves from concrete thought to abstract thinking.

Definition of Key Terms

For the purpose of this study, key terms are defined. The following significant definitions are presented to clarify key concepts that are integral to this study.

Classroom design

Classroom design is defined as the components that make up the physical layout of the classroom.

Early literacy

Early literacy is defined as the knowledge, skills and dispositions that precede learning to read and write in the primary grades that are part of a complex process of learning to read (Roskos, Christie, & Richgels, 2003).

Phonemic awareness

Phonemic awareness is the ability to recognize the smaller sections of sounds within the spoken word (Allor, Gansle, & Denny, 2006).

Prekindergarten classroom

Prekindergarten classroom is a part of the formal public or private school system that serves children prior to their entrance into kindergarten, typically around the age of four.

Response-to-intervention

Response-to-intervention (RTI) is a three tier approach to identifying children with learning disabilities that includes classroom design and teacher instruction, small-group intervention, and possible referral for special education evaluation.

Recognition and Response

Recognition and Response (R&R) is a modification of RTI that is used for children from three to five years old and includes identifying appropriate instruction, making program modifications, tailoring instructional strategies, and providing appropriate supports for individual children who struggle to learn (Coleman, Buysse, & Neitzel., 2006).

Teacher training

Teacher training is preservice and inservice instruction received by teachers to enhance their knowledge and skill of early literacy and early identification.

Significance of Early Literacy

Today, there is agreement that learning to read begins long before children receive formal education. Cognitive work in literacy development continues from birth through age 6, and quality instruction is a vital contribution to children's success as they learn to read and write (Neuman & Dickinson, 2003).

Early literacy begins at birth, is progressive, and is influenced by sociocultural experiences (New, 2001). A variety of terms are used to refer to the preschool phase of literacy development such as emerging literacy, emergent reading, early reading, and early literacy (Roskos, Christie, & Richgels, 2003). For this study, early literacy will be used because it is a comprehensive and concise description of the knowledge and skills that precede learning to read in kindergarten to third grade (Roskos, et al., 2003).

For the better part of the 20th century in the United States, definitions of literacy concentrated on basic reading and writing abilities (New, 2003). During this time, it was believed that literacy development began around the age of 6. This theory changed with the idea that literacy developed through instructional strategy and not age. Then, researchers realized that some children learned to read without any formal instruction. This created an interest in the process by which early literacy skills emerged (New, 2003). Subsequently, researchers began to look at early literacy as a social experience for children.

In the context of social relationships, researchers became interested in particular activity settings such as family dynamics, social and emotional experiences. Ethnographers supported the value of bedtime stories, language use, and oral discourse (New, 2003). Researchers are now fine-tuning their understanding of literacy development. They are generating theories such as the cognitive processing models which focus on oral and written language, the sociocultural models that focus on the integration of context and cognition, and the ecological and environmental models that focus on children's formal and informal learning of written language development in school and nonschool settings (Neuman & Dickinson, 2003).

Marie Clay

Marie Clay believed that no two children respond the same way to the same learning situation. Consequently, teaching must be tailored to each child (Clay, 1994). Clay developed the theory of acceleration in which the child who is making slow progress and drops behind the rest of the class must accelerate her literacy accomplishment in order to catch up. It is not the teacher who produces the acceleration. However, an expert teacher can help the student focus her attention on the new learning (Clay, 1994).

Clay (1994) advocated three steps to reading success. The first step is to provide good preschool experiences. The second step is to provide a good early literacy curriculum. The third step is threefold: 1) monitor the children's progress at the end of the first year of learning at age five, 2) provide an intervention program for those who need it, and 3) provide specialist services for those who do not respond to intervention (Clay, 1994). This process is similar to the Response-to-Intervention approach.

To address children's inefficient responses to learning to read, Clay developed Reading Recovery (Mowat, 1999). Reading Recovery is based on the assumption that children learn through social interaction and provides the social interaction supports to assist a child's ability to work at her own level with support from an adult. In this way, Clay incorporates Vygotsky's concept of ZPD. In addition, Reading Recovery incorporates Vygotsky's concept of meaningful activities that connect text instead of redundant skill sheet activities (Mowat, 1999). Moreover, Reading Recovery promotes effective literacy instruction that is provided by sensitive, well-trained teachers for children's first year of school (Mowat, 1999).

Classroom Design and Early Literacy

Several studies have examined the classroom environment and its effect on literacy behaviors (Morrow, 1991; Morrow & Rand, 1991; Neuman & Roskos, 1990). For example, Morrow and Rand (1991) found that children demonstrated more literacy behaviors when the classroom had "thematic literacy-related materials" (Dickinson & Neuman, 2006, pp. 260) than the control classroom.

Correspondingly, Morrow's study (1991) found that the number of books, the number of kinds of paper and computers, the number of pencils and crayons, and labels in the classroom correlated with the frequency that children would read and write during free play. Also, Morrow found that providing literacy props that related to the dramatic play center such as a library or a kitchen increased the number of literacy activity during play.

Another environmental factor that indicates a strong correlation to literacy development is children's access to books (Whitehurst & Lonigan, 1998). When children are provided with books, their literacy skills are enhanced.

Of course, the environment cannot stimulate literacy skills without the knowledge and support of teachers. The results of a study by Vukelich (1991) show that children engage in more literacy behaviors when teachers model the use of literacy materials. Thus, the results of her study indicate the importance of ongoing teacher involvement to enhance literacy skills.

Importance of Teacher Training and Response to Intervention

When teachers receive intensive instructional lessons in how to teach phonology and phonemic awareness, they incorporate their new knowledge into their curriculum which results in improved student learning. Therefore, teachers must be trained and knowledgeable in phonological skills in order to address the gaps in early literacy skills (Fuchs, Thompson, Al Otaiba, Yen, Yang, Braun, & O'Connor, 2002; Lerner, 2003; Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; Shaywitz & Shaywitz, 2004). With appropriate classroom instruction and intensive intervention, 90 – 95 percent of children who have reading delays can bring their reading skills up to the average range (Lyon, Fletcher, Torgesen, Shaywitz, & Chhabra, 2004).

The RTI procedure may be the most appropriate approach to address the teacher training issue. RTI is implemented in three tiers. In Tier I, if the classroom instruction is deemed inadequate, intervention is implemented to develop a stronger instructional program ((Fuchs, Fuchs, & Young, 2004). After an appropriate classroom instructional program is established, the progress of each child is monitored. In Tier II, children whose academic performance is still below the rest of the class are identified. The teacher or other trained person provides individualized and intensive instruction for students who do not progress in the classroom. The students' progress is again monitored. The students who continue not to respond and progress with intervention qualify for special education evaluation or for special education and continue to receive intense intervention (Tier III). Because they did not respond to effective instruction, these children are considered to be at-risk for academic failure (Fuchs, et al., 2004).

The beauty of RTI is that it addresses classroom instruction as one reason for low student performance and provides training for teachers. Furthermore, RTI quickly provides assistance to a larger group of students who are struggling to read, and RTI separates the students with potential disabilities from those who are simply struggling to read. This distinction reduces the number of students in special education and the cost to educate them. Lastly, fewer students are stigmatized with an LD label (Fuchs, Fuchs, Mock, Morgan, & Young, 2003).

Prekindergarten teachers are an underutilized, yet important, resource to stimulate rich language and to develop early literacy skills. Consequently, prekindergarten teachers are crucial to the early prevention of reading problems (National Research Council, 1998). As such, they need to be trained in phonemic awareness and early intervention techniques. Teachers need to incorporate materials that are fun, interesting, systematic, and creative into the curriculum in order to reduce the number of children who fail to learn to read (Fuchs, Fuchs, Thompson, Al

Otaiba, Yen Yang, Braun, & O'Connor, 2002; Lerner, 2003; Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; Shaywitz & Shaywitz, 2004). Only a few studies have investigated what teachers know about language and reading, how teachers' reading instruction is affected by this knowledge, and how teachers learn the concepts and practices of reading instruction (Moats & Foorman, 2003).

Purpose of the Study

According to the National Joint Committee on Learning Disabilities (NJCLD) (NJCLD, 1986), the preschool years represent a "critical period" in which prevention and intervention efforts are most effective. Preschool is an opportunity to provide language and literacy experiences in small groups, one-on-one teacher-child interactions, and child-initiated activities (Morrow, 2005). Thus, teachers, administrators, and families must identify children who demonstrate specific developmental delays or behavioral problems and recognize the potential for early manifestations of reading disability (R/LD). Without educational assistance, behavioral difficulties, such as isolation, withdrawal, clowning or acting out, may mask the original, less visible signs of R/LD. Moreover, without early assistance, children miss opportunities for reading practice that benefit future fluency, vocabulary and comprehension. Further, without early identification, many children and, consequently, adults who have undiagnosed R/LDs, go through life with a "hidden handicap," which may result in low self-esteem and difficulty in the workplace (LDOOnline, February 2, 2003).

The purpose of this study is two-fold: to ascertain whether preschool teachers design their classrooms for early literacy and to determine teachers' rationales for choosing their classroom designs.

Research Questions

Two primary research questions will guide this study:

1. To what extent do prekindergarten teachers design their classrooms to enhance early literacy?
2. What do prekindergarten teachers base their decisions for designing their classrooms to support early literacy?

Summary of Chapter I

In summary, data will be collected regarding how teachers design their classrooms to enhance early literacy and what their rationales for doing so are. The hypothesis is that most teachers will not design their classrooms to enhance early literacy and if they do, they will not understand why. This information will be identified so that teachers understand the need for early literacy skills and how to provide them.

CHAPTER II

LITERATURE REVIEW

This chapter provides a theoretical, research-based view of early literacy. Included are discussions of the history of literacy, the people and policies that influenced literacy, assessments, research in teacher personnel preparation, and preschool classroom design.

Definitions of Literacy

Although the definition of literacy would seem straightforward, definitions vary because the term ‘literacy’ refers to a wide range of reading and writing activities (Kaestle, Damon-Moore, Stedman, Tinsley, & Trollinger, 1991). Hiebert (1991) wrote of a “new perspective on literacy” (p. 1). He said there is a “profound shift from a text-driven definition of literacy to a view of literacy as active transformation of texts,” where “meaning is created through an interaction of reader and text” (p. 1).

Kaestle and colleagues (1991) define literacy as the ability to decode and comprehend written language at a basic level. For example, their definition includes “the ability to say written words corresponding to ordinary oral discourse and to understand them” (p. 3).

Lankshear (1998) states that since the 1980’s the emphasis on basic literacy within educational reform discussions has been expanded to include concerns for excellence, i.e., higher levels and standards of achievement, what Lankshear calls “metalevels” (p. 355). For example, at school levels, basic literacy represents mastering the alphabet visually and phonetically and understanding how the elements of these letters are put together to encode and decode words and how to separate words or put them together to read and write sentences. In 1995, Venezky elaborated on the basic definition of literacy which was the ability to read. He stated that writing should be emphasized as well as reading (Indrisano & Chall, 1995). He also stated that the

reader must be an active participant in order to interpret the print messages (Indrisano & Chall, 1995).

For this study, the definition that will be used to define early literacy is the National Research Council (1998) definition of the skills that three- and four-year olds exhibit such as the ability to recognize environmental print; knowing that print is read in stories; paying attention to separable and repeating sounds in language; using new vocabulary and grammar in own speech; understanding and following oral directions; and showing an interest in books and reading.

History of Literacy

In every literate society, learning to read is something of an initiation, a ritualized passage out of a state of dependency and rudimentary communication. (Manguel, 1996).

In Christian society of the late Middle Ages and the early Renaissance, only the aristocracy and the clergy had the privilege of learning to read. Most boys and a few girls from the upper class learned their letters phonetically when they were young, but not before the age of seven (Manguel, 1996). Once the children learned their letters, male tutors provided the boys' education - if the family could afford them - while the mothers provided the girls' education. Boys would go on to be educated away from home with other boys. Girls from affluent homes were sent to school to learn to read and write to prepare them for entering the convent (Manguel, 1996). This pattern of higher rates of literacy for males over females continued until the twentieth century (Kaestle, Damon-Moore, Stedman, Tinsley, & Trollinger, 1991).

Levels of literacy have reached highs and lows over time creating a "literacy crisis" (Graff, 1991, p. 373) when levels of literacy are very low. Since the public school system was created in 1635, prominent leaders have instituted reform programs designed to eliminate illiteracy as a reaction to a literacy crisis (Graff, 1991). Regardless of the century or decade, however, literacy rates are related to social economic status. In every society, the discrepancy

between those who are literate and those who are not suggests a higher rate of illiteracy among the poor (Graff, 1991). More recent studies have shown that children from low SES families often have few to no books at home. For example, based on National Assessment of Education Progress (NAEP) data there are gaps between Black-White and Hispanic-White populations in reading ability (Thoreson, 2001). In reading, NAEP found three variables in the home are significant: newspapers, an encyclopedia, and 25 or more books (Thoreson, 2001). McCormick and Mason (1986) found that 47% of preschoolers whose families were on public aid reported no alphabet books in the home, compared with 3% of professional families. Furthermore, Feitelson and Goldstein (1986) found that 60% of the kindergartners attending academically poor schools did not own a single book.

People Who Influenced Literacy

The pendulum of reading methods swung in different directions and different times for Samuel Heinicke and Horace Mann. See Table 2.1 for a brief history of individuals who influenced literacy. Heinicke (born 1727- died 1789) was one of the first teachers to teach reading by focusing on the sounds of the letters. He stressed spoken language (Dilka, nd.) and was contemptuous of the alphabet spelling method of teaching reading of his time. He preferred the phonic method of speech and taught speech by having his students feel the throat. He called this method “Oralism” (Graves & Dykstra, 1997). In contrast to Heinicke, Mann (born 1796 – died 1859) advocated whole language reading techniques versus teaching phonics. He believed that the method of teaching phonics of his day was too slow because it could take children a year to eighteen months to learn the alphabet before learning to read words (Eakin, 2000).

Table 2.1. Brief History of Key People Who Influenced Literacy

Year	Person	What He/She Did	Reading Method Preference
1778-1780	Heinicke	Founded first German school for the deaf	Taught phonic method
1833-1859	Mann	Advocated for public school Founded first state-funded institution for training teachers	Whole language reading method
1955	Flesch	Wrote “Why Johnny Can’t Read”	Promoted phonics method
1967	Chall	Wrote “Learning to Read: The Great Debate”	Highlighted the controversy of basal readers vs. phonics

For decades following Horace Mann, the pendulum of reading methods swung back and forth. In the early 1900’s, some consensus developed among reading authorities, and from 1930 to the mid 1950’s, the reading pendulum seemed stagnant (Graves & Dykstra, 1997). During this time, various types of basal reader, books with stories that have limited, controlled vocabulary (such as the Dick and Jane books) were used as the primary reading instruction across the country. Basal readers were used to teach students to identify sight words and not to read phonetically. Typically, phonics was not taught until a student could identify about 50 sight words and was used as a back-up strategy after meaning clues and word structure analysis were unsuccessful (Graves & Dykstra, 1997).

The reading methods pendulum began to swing again after the publication of *Why Johnny Can’t Read* by Rudolph Flesch in 1955. In his book, Flesch denounced the use of basal readers for reading instruction. Flesch’s book was immensely popular and was an influential factor in prompting the research about teaching reading methods (Graves & Dykstra, 1997).

In her book, *Learning to Read: The Great Debate* (1967), Chall wrote the “great debate” developed over whether children learned to read with a beginning method that stressed meaning or with a method that stressed learning the code, i.e. the sound that each letter makes (p. 290).

At the time, most children in the United States learned to read using the Dick and Jane basal readers. This method, however, was now being challenged by those who believed that reading was successful when children learned the code.

Political Policies and Legislation that Influenced Literacy

One factor that influenced research about teaching reading methods was the launching of Russia's Sputnik I in 1957 (Graves & Dykstra, 1997). Because the Russians launched a space satellite before the United States, many Americans believed that Russia was scientifically superior and that the outcome of the Cold War was threatened (Graves & Dykstra, 1997). Consequently, in 1958 the U.S. Congress passed the National Defense Education Act (NDEA) which provided funding for students to study courses that were deemed necessary for national security such as science and engineering. See Table 2.2 for a summary of legislation impacting literacy. Funding from NDEA was also available to improve education, and thus, the First Grade Studies were funded. The researchers of the First Grade Studies conducted 27 individual studies that investigated teaching methods such as: Basal, Basal Plus Phonics, Linguistic Language Experience, and Phonic/Linguistic Studies (Graves & Dykstra, 1997). The conclusions of the First Grade Studies indicated that a combination of approaches to reading surpassed any single approach and that research is important to improve reading instruction (Graves & Dykstra, 1997).

Table 2.2. Brief History of Influential Literacy Legislation in the United States

Year	Legislation	Policy	Impact
1958	National Defense Education Act	Funding provided to students & for research	Inspired students to study in fields considered vital to national security, e.g. science, math, engineering, & technology
1964	Elementary & Secondary Education Act	Office of Economic Opportunity authorized to make grants to states	Provided funding to schools with large populations of poor children
1994	Goals 2000: Educate America Act	Children will start school ready learn Grades 4, 8 & 12 must demonstrate competency	Increased professional development in literacy education Created nationwide testing program in reading & math
1997	Reading Excellence Act	Underachieving & high poverty schools targeted Literacy education will use scientific protocol used in engineering, business, nursing, & medicine	Indicated literacy no longer the sole property of education
2002	No Child Left Behind -	Reading research will use the scientific method Reading instruction will include phonics Tighter guidelines created to improve reading in kindergarten to 3 rd grade	Funded states for Reading First & Early Reading First programs

For the most part, the pedagogical and philosophical debates about literacy policy and practice were restricted to education professionals (Reutzel & Mitchell, 2005). However, in the 1970's political, ideological, economical, cultural, social thought, and program movements changed the way we lived and thought (Graff, 1991). Literacy became the hot topic. In 1983, President Reagan's National Commission of Excellence in Education concluded that the security of the nation was "at risk" (Kaestle, Damon-Moore, Stedman, Tinsley, & Trollinger, 1991, p. 76) blaming schools for declining reading scores for almost twenty years. Subsequently, things changed when the U.S. Secretary of Education, Terrell Bell in the Reagan administration, issued

a report on the state of education called *A Nation at Risk* (1983). Because of this report and vast press coverage, the public became skeptical that the education establishment could police itself and make changes based on data and not on the political sways of untested theories (Edmondson, 2004).

In 1994, the National Assessment of Education Progress (NAEP) data were released. This report indicated a measurable decline in fourth grade reading scores across the country. The cause for the decline appeared to be the whole language literacy curricula (Edmondson, 2004). NAEP's report drew an outcry from the public, educators, and school administrators. These groups contacted their local, state, and national legislatures to bemoan the constant debates within the literacy community about how to teach children to read and write. Meanwhile, children at risk were reportedly slipping through the educational cracks (Edmondson, 2004).

In the mid-1990's, data showed that failure to learn to read on grade level at an early age – by third grade – was correlated with social, political, and economic disadvantage (Fielding, Kerr, & Rosier, 1998). In 1995, compounding the revelation of declining national reading achievement, another internal battle raged among literacy researchers known as the research paradigm wars. Conflicts over the efficacy of quantitative versus qualitative research flourished between the two paradigms (Edmondson, 2004).

Reading reform as a policy reform developed into the Reading Excellence Act of 1999 which explicitly linked education to the economy by naming reading as the key to American success in a global economy (Edmondson, 2004). Congress decided that research used to reform literacy education would maintain the rigid “scientific” demands that were used in engineering, business, nursing, and medicine (Edmondson, 2004, p. 608). In addition, subsequent reports from Snow, Burns, and Griffin (1998) and the National Reading Panel (National Institute of

Child Health and Human Development, 2000) indicated that literacy would no longer be the sole property of “educationists” (Edmondson, 2004, p. 608).

In 1998, the National Research Council (NRC) published *Preventing Reading Difficulties in Young Children* by Snow, Burns, and Griffin. Snow and colleagues (1998) recommended ways to promote quality reading instruction such as: “...using reading to obtain meaning from print, having frequent and intensive opportunities to read, frequent exposure to regular spelling-sound relationships, learning about the nature of the alphabetic writing system, and understanding the structure of spoken words” (p. 422). However, the report did not satisfy Congress for two reasons: 1) the NRC did not specify how reading skills should be taught and 2) the NRC report was criticized for producing a document that was based on the judgments of a diverse group of experts in reading research and reading instruction only (Edmondson, 2004). In response, Congress commissioned the National Reading Panel (NRP), which consisted of a diverse group of educators, psychologists, neurologists and others. Their responsibility was to: 1) to conduct a thorough study of research and knowledge relating to early reading development and instruction in early reading, 2) to determine what research and knowledge are available in classrooms around the country, and 3) to determine how to disseminate the research findings and knowledge to schools and classrooms nationwide (Edmondson, 2004).

The NRP investigated scientific studies of reading (Edmondson, 2004). Its report, *Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature and Its Implications for Reading Instruction* (National Institute of Child Health and Human Development, 2000), was a major influence on President Bush’s Reading First Initiative.

In 2002, the U.S. Congress reauthorized the Elementary and Secondary Education Act of 1964 to reform public education, and it became known as No Child Left Behind (NCLB). As part of this legislation, the study of reading was ensconced in scientific research and the assurance that early reading instruction would include “attention to early, systematic, explicit phonics instruction” (Edmondson, 2004, p 608) and provided tighter guidelines as states planned to improve reading instruction and reading achievement of children from kindergarten through third grade (Carlisle & Hiebert, 2004). This legislation passed with the largest bipartisan vote since 1964. No Child Left Behind provided federal funds to states for Reading First and Early Reading First (ERF) grants (in Edmondson, 2004). With Reading First, programs must be supported by educational research and must cover five components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Carlisle & Hiebert, 2004). Early Reading First was designed to strengthen local programs to improve young children’s pre-reading and language skills so that young children will enter kindergarten with the language, cognitive, and early reading skills necessary for successful learning (Retrieved on July 28, 2007 from <http://www.edgov/print/programs/earlyreading/index.html>). ERF funding is provided to public, private, and nonprofit local organizations, such as school districts and faith-based organizations (Jacobson, 2002). ERF funding goals include providing scientifically-based professional development for teachers, using quality language- and literature-rich reading activities, and offering strong cognitive assessments to screen children who may be at risk for future reading problems (Jacobson, 2002). The objectives of ERF were to improve classroom environments so that children can receive the prerequisite skills, such as letter recognition, that are needed for more formal reading instruction which begins in elementary school and to build

cognitive skills (Jacobson, 2002; Retrieved on July 28, 2007 from <http://www.ed.gov/print/programs/earlyreading/index.html>).

The U. S. Department of Education contracted researchers at the Institute of Education Sciences to evaluate the Early Reading First program (ERF). The final report on ERF indicated that the most significant effect found was in improving classroom activities, materials, and teacher literacy practices. In particular, teachers in participating classrooms received more professional development. The children in these classrooms had higher quality interactions with teachers, access to literacy-building activities, early-writing exercises, and regular screening and assessment of skills, and improved letter knowledge. However, the report also indicated that there was no effect on children's oral-language skills, social-emotional development, or phonological processing, all of which are critical precursors to literacy (Manzo, 2007).

Summary of History of Literacy

Over time, the literacy pendulum swayed back and forth from teaching reading with a focus on phonics and letter sounds to focusing on whole language reading techniques. The literacy pendulum also swayed back and forth from education professionals directing literacy policy and programs to legislation governing policy and programs.

Early Literacy

Overview of Early Literacy

A large body of evidence indicates that high-quality prekindergarten programs yield lasting benefits in early literacy for young children (Strickland & Shanahan, 2004). However, the teachers must have knowledge of early literacy development, and they must design their classrooms to enhance early literacy.

Importance of Early Literacy

Many two- and three-year old children are exposed to models of letters by watching television programs, such as Sesame Street, Blues Clues, Bob the Builder, The Wiggles, and Mr. Rogers' Neighborhood. Between three and four years of age, children practice by scribbling, occasionally incorporating an actual letter or number in the scribble (Juel, 2006). In addition, they "read" books by repeating a story from a favorite book using intonations and wording used by an adult who reads to them (National Research Council, 1998).

According to Lyon (2002), children who are exposed to oral language and literacy experiences from birth are advanced in vocabulary development, awareness of print and literacy concepts, and understand the goals of reading (Dickinson & Tabors, 2001). In preschool, children who exhibit age-appropriate sensory, perceptual, cognitive, and social skills tend to be good readers. Exposing very young children to oral language and literacy interactions develops the concepts for rhyming and alliteration as well as word and language use that lead to building phonemic awareness (Lyon, 2002; National Research Council, 1998). Providing language and literacy opportunities for children in preschool can be accomplished by integrating appropriate literacy activities throughout the traditional preschool curriculum. For example, teachers can integrate literacy into play by setting up real-life situations, such as a restaurant with menus with words and photos. The teachers can show the children how to read the menus, and the children can take orders and "write" them down (Morrow, 2005). By taking the orders, children are learning that print is related to every day experiences.

Some preschool accomplishments include: counting, number concepts, letter names and shapes, phonological awareness, and social skills with peers (National Research Council, 1998). Preschool children who can recognize and discriminate letters of the alphabet have less to learn

in kindergarten and are usually from homes that have alphabet books. Learning the names of alphabet letters is important because the names of the letters are often the same as the sound that the letter most often makes (Lyon, 2002). For example, the letter /s/ makes the sound of “ess.” With this knowledge, preschoolers can grasp the alphabetic principle, which explains how sounds of speech - phonemes - are associated with the letters of the alphabet – phonics. This alphabetic principle is the core of learning and applying phonics skills to print (Lyon, 2002). Children are more apt to develop a desire for reading if they have these skills. Without effective and sufficient instruction, many children will have difficulty learning to read (National Research Council, 1998). The failure to develop efficient phonological ability appears at the earliest stages of literacy training (Pugh, Mencl, Jenner, Katz, Frost, Lee, Shaywitz, & Shaywitz, 2000).

According to the National Research Council (1998), three- and four-year olds who are following normal development should exhibit the following developmental accomplishments:

- Know that alphabet letters are a special category of visual graphics;
- Recognize local environment print, e.g. stop sign;
- Know that it is print that is read in stories;
- Understand that different text forms are used for different functions of print, e.g. list for groceries, menus from restaurants;
- Pay attention to separable and repeating sounds in language, e.g. Peter, Peter, Pumpkin Eater;
- Use new vocabulary and grammatical constructions in own speech;
- Understand and follow oral directions;
- Are sensitive to some sequences of events in stories;
- Show an interest in books and reading;

- Connect information and events to life experiences when being read a story;
- Question, comment about, and demonstrate understanding of literal meaning of the story that is being told or read;
- Display reading and writing attempts, calling attention to self: “Look at my story;”
- Can identify 10 alphabet letters, especially those in own name;
- “Write” (scribble) message as part of playful activity;
- May begin to attend to beginning or rhyming sound in noticeable words.

However, preschool children who show signs of atypical development often present with the following characteristics (early warning signs):

- Late talking as compared to other children;
- Pronunciation problems;
- Slow vocabulary growth;
- Often unable to find the right word to complete a thought;
- Difficulty rhyming and learning new words;
- Trouble learning numbers, the alphabet, and days of the week;
- Extreme restlessness;
- Distractibility;
- Trouble interacting with peers; and
- Poor ability to follow directions or routines (Bergert, 2000; Lerner, 2003; Sousa, 2005).

Shaywitz (2003) states that early language difficulty can be an early clue to reading difficulty. She suggests that the following problems in preschool may also indicate future

reading problems: difficulty learning simple nursery rhymes (such as “Jack and Jill”), lack of appreciation for rhymes, mispronounced words, persistent baby talk, and an inability to know letters in own name.

Most children entering kindergarten do not understand that speech is composed of individual phonemes. Their lack of phoneme comprehension is understandable because speech is seamless, i.e., phonemes in words are not pronounced one at a time. Instead, they overlap (Castiglioni-Spalten & Ehri, 2003). However, reading is not seamless. Beginning readers must learn to distinguish phonemes in oral language and understand how they relate to graphemes (letters of the alphabet including letter combinations that represent a phoneme, such as ph, and gh for the phoneme /f/) in the spellings of words. Distinguishing phonemes in speech is difficult for beginning readers because sound is fleeting and disappears immediately (Castiglioni-Spalten & Ehri, 2003). Preschool is the ideal place to provide language and literacy experiences because the curriculum is based on small groups, in one-to-one teacher-child interactions, and in child-initiated activities (Morrow, 2005).

In 2008, the National Early Literacy Panel (NELP) published their vast meta-analysis of approximately 300 studies which measured which early literacy skills correlated with later literacy achievement. NELP found the following variables to be the most influential in predicting future reading success:

- Alphabet knowledge - knowing the names and sounds of each letter
- Phonological awareness – the ability to detect, manipulate, or analyze the auditory aspects of spoken language without meaning
- Rapid automatized naming of letters/digits – the ability to rapidly name sequences of random letters or digits

- Rapid automatized naming of objects/colors – the ability to rapidly name a sequence of repeating random sets of pictures of objects or colors
- Writing/writing name – the ability to write letters in isolation or to write one’s own name
- Phonological memory- the ability to remember spoken information for a short period of time.

Relationship between Language and Learning to Read

Language has a direct relationship to learning to read. Language development is affected by the environmental setting and the language the child hears. From birth, babies’ receptive language is developing, and they can distinguish all the sounds of their language even though their expressive language is limited to cooing and babbling (Ashmore, 2003). In addition, language development does not require a conscious awareness of the components of language, i.e. phonology (the sounds of the letters), morphology (the rules of word formation), and syntax (the rules of sentence formation) (Ashmore, 2003). An appropriate preschool is designed to enhance language by providing opportunities to use language skills socially in play activities (Ashmore, 2003).

Learning to read is a language-based process. For children six years old and younger, conversations at home with parents, at childcare with care takers, and in preschool provide opportunities to tell stories about their daily experiences (Ashmore, 2003). While young children are developing their language abilities, i.e. increasing their vocabulary exponentially each year, they are also learning about the sounds that the letters make in words, for example, learning the letter names and the relationship between letters and sounds (Ashmore, 2003; National Early Literacy Panel, 2008). However, learning the alphabetic system requires explicit teaching.

Activities such as rhyming words create the link between the awareness of words and the awareness of the individual speech sounds (Ashmore, 2003). Learning to rhyme is associated with phonological awareness which research has indicated is a necessary component in learning to read.

Principles of Learning to Read

Learning to read is associated with learning to talk. While learning to talk is a natural, innate process, learning to read requires elaborate instruction and effort (Foorman, Perfetti, & Pesetsky, 2002; National Early Literacy Panel, 2008; Sousa, 2005). Learning to read also encompasses other developmental accomplishments, such as attention, memory, language, and motivation (National Research Council, 1998; Sousa, 2005). In addition, reading requires the need to slowly and analytically sound out words.

There are six stages of reading (Lerner, 2003; Lyon, 2002; Shaywitz & Shaywitz, 2004). The first stage of reading - early literacy or prereading - begins before the first grade. First, children learn letters and their sounds. Then, they apply this new knowledge to sound out words slowly and analytically. This early literacy stage of reading is vital to successful reading. Children who are aware of print and phonological awareness can “read” common signs (i.e., the stop sign, “M” for McDonald’s) and labels, pretend to read books, and can write their names. During stage two – decoding - first graders and beginning second graders who have knowledge of the alphabetic principle, can identify 1,000 of the most common words in oral language and can read simple texts. Children learn to decode (sound out words) in print and can read simple texts. In stage three – fluency - second and third graders who have knowledge and skills from stage two, can decode and read with greater fluency, and can recognize 3,000 familiar written words. Reading becomes automatic for familiar texts. Stage four includes children in grades four

through eight who use reading for learning. At this stage, reading encompasses more unfamiliar material. In stage five, high school students can read a broad range of complex materials. And, in stage six, college students and adults read for their own needs and purposes. The texts are more varied and complex in language, cognitive ability, and content. As the texts become more challenging, the reader's ability to think critically and broadly widens (Indrisano & Chall, 1995; Lerner, 2003). Although individuals progress at different rates of success, almost all readers progress through the same sequence of stages of reading development (Lerner, 2003).

Two national studies (Siegel & Hanson, 1992) analyzed data gathered from 3,959 high school students in 24 school districts across the country. The first study, the Kindergarten Reading Follow-up Study (KRF), analyzed the long-term effects on children being taught to read in kindergarten. The second study, the Reading Development Follow-Up Study (RDF), utilized the same KRF data to identify specific types of experiences from preschool to high school that foster reading achievement in high school seniors. The results indicated that activities such as learning nursery rhymes and stories, watching Sesame Street and other children's television programs, playing word and number games, being read to, and attending nursery or preschool contributed to children's abilities to read later in high school (Siegel & Hanson, 1992). The authors further state that children who learn to read in preschool and kindergarten, either informally through home and family experiences or formally from beginning reading programs in preschools and kindergarten, are usually good readers later in primary grades (Siegel & Hanson, 1992).

Children who are having difficulty learning to read can be observed in the early stages of reading development. They may have difficulty linking phonemes to letters and letter patterns. Their reading is characterized with starts, stops, and mispronunciations, which reduces their

comprehension because it takes so long to read the words. Thus, they get frustrated and forget what they just read (Lyon, 2002). Children with reading difficulty cannot rapidly recognize words because of their inability to decode unfamiliar words, which is directly related to the inability to understand that auditory language is composed of smaller sections of sound, i.e. phonemic awareness. This inability to decode leads back to the importance of early literacy and oral language interactions with adults during infancy and early childhood (Lyon, 2002; Morrow, 2005; National Early Literacy Panel, 2008). Research substantiates that without systematic, focused, and intensive interventions, most children will not “catch up” (Lyon, 2002). Without intensive assistance, 74 percent of children at-risk for reading failure will continue to have reading problems into adulthood (Lyon, 2002).

Prevention of Reading Problems

In preschool, predicting which children will have reading problems may be difficult, thus, prevention efforts must include all children. Waiting for a child to be diagnosed with a reading disability in elementary school may hinder the child’s ability to be a successful reader (National Research Council, 1998).

To reduce the number of children who enter kindergarten and elementary school at-risk for reading failure, children must be identified early in preschool and provided with systematic, explicit, and intensive intervention in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies (Lyon, 2002).

Summary of Early Literacy

Children who are successful readers are frequently exposed to oral language and literacy experiences from birth. Exposing very young children to oral and literacy experiences develops rhyming and alliteration concepts and builds phonemic awareness (Lyon, 2002; National

Research Council, 1998). Prekindergarten is an ideal time to provide language and literacy experiences. To prevent reading problems, all young children at-risk must receive adequate literacy instruction. Children at-risk must be provided systematic, explicit and intensive intervention in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies (Lyon, 2002).

The Assessment Process

Assessment is a systematic process of gathering and analyzing information in order to make decisions (Appl, 2000; McConnell, 2000; Salvia, Ysseldyke, & Bolt, 2007). For example, if medical problems or developmental delays in any developmental domain (adaptive, cognitive, communication, physical, and socio-emotional) are discovered during early critical stages of development, interventions can be designed to correct, minimize, or remediate them before the child enters school (Wortham, 2001). In early childhood, assessments are conducted by pediatricians and other service providers (e.g., education diagnosticians, teachers, therapists, and school psychologists), to identify young children who show evidence of developmental delay or are at-risk for learning later in life (McConnell, 2000).

The Traditional Assessment Process

Making the determination that a preschooler is at risk for reading disability (R/LD) is a complicated task. In a survey (Turnbull, Turnbull, Shank, & Leal, 1999) to assess how states identified preschoolers at risk for R/LD, it was found that more than half the states used a noncategorical approach that allowed children to qualify as “at risk” or “developmentally young” rather than having a learning disability (LD). One rationale for a generic label is to avoid the stigma of negative labels. Another rationale is that the LD category for preschoolers uses a modified federal definition and qualifies children based on listening, thinking, and speaking

(Turnbull, et al., 1999). These identifiers are the foundation on which language is based, and thus, are utilized as indicators within the assessment process.

The assessment process for preschool children, ages three to five, includes: Child Find, screening, multidisciplinary evaluation, and planning individual programs (Appl, 2000; Lerner, 2003). Each stage of assessment demands different specific decisions including different information or type of data gathered (Appl, 2000). Child Find, which is mandated by the Individuals with Disabilities Education Act (IDEA, 1997, 2004), informs parents and professionals about child development, screening, diagnosis, intervention services, and referral procedures. Under Child Find, states are required to systematically locate, identify, and evaluate children in need of special education services including procedures for parents or professionals to make referrals (Appl, 2000). Such methods as radio announcements, posters, and signs in childcare centers and libraries, alert parents of preschoolers of services that are available (Lerner, 2003).

Screening, the second phase of the assessment process, is a short, simple assessment of children's hearing, vision, communication, motor skills, self-helps skills, social-emotional maturity, and cognitive abilities and can be used to collect data to decide if more intensive assessment is necessary (Salvia, Ysseldyke & Bolt, 2007). It can also be used to identify children who may be at risk for learning problems when teachers notice students are having difficulties learning (Appl, 2000; Salvia, et al., 2007). Routine screening of young children can identify those children who may need systematic, focused, and intensive early intervention (Lyon, 2001). Screening measurements can be performed in a short time and provide teachers and schools with information about which children are most at-risk for subsequent reading problems. Armed with this information, the teacher can plan instruction and prevent the child

from falling further behind (Lyon, 2001). Because a large literature (Foorman, Perfetti, & Pesetsky, 2002; Lyon, 2002; Lyon & Moats, 1997; Torgesen, 1998) indicates that children do not outgrow reading problems, the concept that maturation will improve the reading lag is outdated and incorrect. Continuing the maturation fallacy only perpetuates the “wait to fail” attitude (Lyon, 2001). Shaywitz (2003) suggests a quick screening can be as simple as having a child name letters presented one at a time on a card or by asking the child to name the sound that a letter makes. This simple task can indicate if a child is having difficulty with phonological skills. Or, a screening tool such as Get Ready to Read (Whitehurst, Lonigan, Fletcher, Molfese, Torgesen, 1998) can be used. It is designed to screen children twice during the year before kindergarten. This tool can be used for four-year-old children.

Multidisciplinary evaluation, the third phase in the assessment process, is used when a developmental problem is suspected through screening and more information is needed (Wortham, 2001). Through a comprehensive, formal process, the child’s strengths and weaknesses are identified to establish a child’s eligibility for services. A multidisciplinary team determines the nature of the problem, its severity, the recommendations, and the placement that is necessary for the child to succeed (Lerner, 2003).

The fourth phase of the assessment process is planning an individual program for the child. The multidisciplinary team uses diagnostic and curriculum-based assessment results to identify goals and objectives and to plan interventions. An intervention plan should be flexible for use in various settings, i.e., child care, home, and preschool programs (Appl, 2000). Family input about the child’s interactions in different settings should also be included as well as the family’s concerns and priorities. The Individualized Education Plan (IEP) is designed to meet the individual needs of a student who receives special education or other services. The IEP team

is composed of professionals whose services are required to meet the needs of the child and may include the general education teachers, special education teachers, and other service providers such as occupational therapist, physical therapist, and speech language pathologist. Also, the IEP must include the student's present educational performance, instructional goals, educational services to be provided, and criteria and procedures that assure that the instructional objectives will be met (Hallahan & Kauffman, 2003).

Discrepancy Controversy

According to the definition of LD in the law (IDEA, 1997, 2004), failure in academic subjects is determined by a discrepancy between the child's ability and academic achievement. This difference is difficult to identify in young children because academic achievement (reading, writing, and math) is typically not the expectation. Also, this definition creates the "wait to fail" method because a child must first fail before she is eligible for services (Vaughn & Fuchs, 2003). The "wait to fail" model presents several disadvantages, which include late identification for children with learning needs and false negatives (unidentified children) who do not receive necessary services or are provided services too late (Vaughn & Fuchs, 2003). Most school districts do not identify children with R/LD until the child is reading far below grade level in the third or fourth grade. By this time, the child has already experienced several years of academic failure and probable low self-esteem and low motivation. Longitudinal studies indicate that of those children who have reading difficulties in the third grade, approximately 74 percent of ninth graders continue to read below their grade level (Lyon, 1996).

In contrast, Shaywitz (2003) believes that a child should receive assistance before she fails. For preschoolers, this method is complicated since they have not yet been exposed to

formal academic learning. Instead, evaluating precursors (as stated previously) to R/LD during the preschool years is a more effective and appropriate methodology (Lerner, 2003).

Diagnostic Assessment Measures

Assessment addresses specific instructional objectives (Salvia, Ysseldyke, & Bolt, 2007) such as phonological skills. The following tests (Shaywitz, 2004) can be administered to preschool children to identify phonological skills and reading readiness: *Comprehensive Test of Phonological Processing in Reading* (CTOPP) (Wagner, Torgesen & Rashotte, 1999) and *The Phonological Awareness Test* (PAT) (Robertson & Salter, 1998). In addition, the *Woodcock Reading Mastery Test* (Woodcock, 1998) can be used to test the child's knowledge of letters and sounds.

Curriculum-based Assessment Measures

Curriculum-based assessment determines the student's instructional needs based on the student's performance with current course content (Salvia Ysseldyke, & Bolt, 2007). An example of a curriculum-based assessment instrument that has literary components is *The Assessment, Evaluation, and Programming System for Preschoolers* (AEPS) (Bricker, 2002). AEPS is a comprehensive system of test items, procedures, IFSP/IEP goals, and instructional recommendations for children with developmental delays. With AEPS, the testing procedures are used to assess children in different ways, and the assessment data can be used to create interventions.

Studies indicate the need for early identification to provide effective reading intervention (Shaywitz & Shaywitz, 2004). Moreover, according to Lyon, Fletcher, Torgesen, Shaywitz, and Chhabra (2004), with appropriate classroom instruction and intensive intervention, 90 to 95 percent of children who have reading delays can achieve reading skills within the average range.

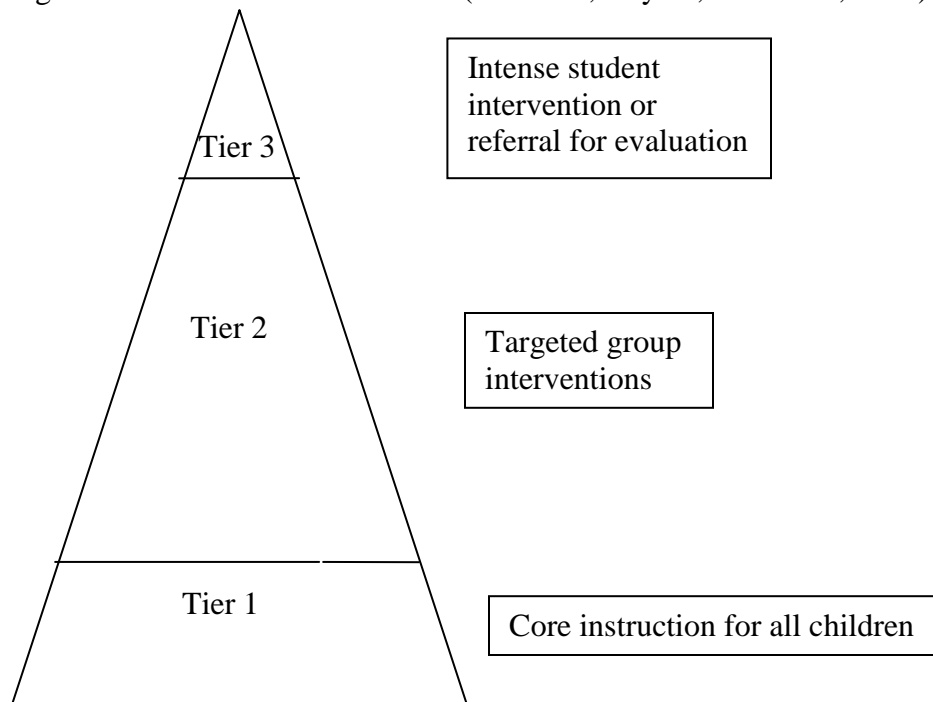
Although most approaches to early identification of reading disabilities emphasize individual differences to identify which children need assistance, these approaches do not take into account the instructional environment in children's academic growth (Case, Speece, & Molloy, 2003).

Response-to-Intervention

The Response-to-Intervention (RTI) procedure utilizes curriculum-based assessment measures to identify children's learning needs. RTI evolved from a 1982 National Research Council study. The RTI study differed from other studies in that it included instructional quality and environments in its study of special education (Vaughn & Fuchs, 2003). Most recently, RTI has become the model to follow for early and intense intervention (Fuchs, Fuchs, Mock, Morgan, & Young, 2003; Gresham, 2002; Vaughn & Fuchs, 2003; Fuchs, Fuchs & Compton, 2004). RTI is distinguished from traditional assessment methods of identifying learning needs in that early and intensive intervention is provided based on learning characteristics. RTI does not wait for children to fail before providing necessary services and support (Coleman, Buysse, & Neitzel, 2006).

RTI is based on three elements: multiple tiers of intervention using increasingly intense interventions; a problem-solving plan with a step-by-step process to identify and analyze problems, to develop a plan, and to evaluate effectiveness of the interventions; and an integrated data collection/assessment system (Coleman, Buysse, & Neitzel, 2006). With the three-tier system (See Figure 2.1), Tier 1 refers to general education with interventions implemented as classroom prevention steps and teacher training, Tier 2 refers to intense intervention, and Tier 3 refers to special education as a combination of prevention and eligibility determination.

Figure 2.1. Three-Tier RTI Model. (Coleman, Buysse, & Neitzel, 2006).



Tier 1 of RTI assures that instruction is adequate (Fuchs et al., 2004). All students are screened to determine whether the curriculum and instruction that is offered in the general education classroom are meeting the needs of most children. Typically, a curriculum-based instrument is used to determine the child's ability. In order for the general education curriculum to be considered of sufficient quality, 80 percent of the children in a particular classroom must meet the pre-determined academic and behavioral benchmarks. If the percent falls below 80 percent, then classroom-level intervention should be implemented to improve the quality of instruction (Coleman, Buysse, Neitzel, 2006; Fuchs, Fuchs & Compton, 2004). Each child's progress is monitored. In Tier 2, the children who do not progress in the classroom are provided with individualized and intensive instruction from the teacher or other trained person. Again, the children's progress is monitored. If children do not respond and progress with intensive intervention, then a special education diagnostic evaluation is conducted (Tier 3).

The RTI model is based on the premise that if instruction is appropriate and a child responds to intensive intervention, then she does not have an LD and has been remediated. If, however, the child does not respond, then an LD is suspected and more persistent special education is necessary (Vaughn & Fuchs, 2003). A primary benefit of RTI-Tier 1 is a focus on instruction and assurance that students who are struggling academically can receive assistance quickly (Fuchs et al., 2004). Moreover, RTI separates children with disabilities from those who perform poorly due to inadequate instruction. This important distinction reduces the number of children in special education and the cost of special education. In turn, fewer children are stigmatized with an LD label (Fuchs, Fuchs, Mock, Morgan, & Young, 2003).

Education personnel should receive training in screening methods, RTI methods, and referral procedures so that assessment and intervention can be initiated as early as possible (Fiedorowicz, Benezra, MacDonald, McElgunn, & Wilson, 1999). In particular, research (Fuchs, Fuchs, Thompson, Al Otaiba, Yen, Yang, Braun, & O'Connor, 2002; Lerner, 2003; Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; Shaywitz & Shaywitz, 2004) indicates when teachers are trained in teaching phonemic awareness and phonology, they use this knowledge in designing their curriculum which results in improved student learning. In the case of reading failure (R/LD), teachers need to be able to recognize the early warning signs.

According to the National Research Council (1998), when a substantial proportion of children in a classroom exhibit low achievement, then low quality teaching is impeding the progress of the children. Poor instruction in early learning can have long-term effects causing the student to perform poorly throughout her academic career. In particular, this condition arises frequently in low-income areas where children have limited access to out-of-school learning, such as availability of books and language development. Often, these children are incorrectly

identified with R/LD (National Research Council, 1998). Fuchs and colleagues (Fuchs, Thompson, Al Otaiba, Yen, Yang, Braun, & O'Connor, 2002) agree that teachers' use of best practices is vital to the success of children with reading limitations. Moreover, frequent professional development and on-site technical assistance should be readily available for teachers (Fuchs, et al., 2002).

Since 1995, the RTI model has received considerable attention. For example, the LD Initiative (a planning committee comprised of researchers, parents, trainers, local education agencies, state education agencies, advocates and policy makers), sponsored by the Office of Special Education at the U. S. Department of Education (Gresham, 2002) commissioned a paper to formulate RTI as an alternative to traditional identification methods. Also, the President's Commission on Excellence in Special Education (2001) and National Academy of Sciences Committee on Overrepresentation of Minority Children in Special Education (2001) emphasized the RTI model to bring credibility to the identification of learning disabilities and approved an RTI model for identification of learning disabilities (Vaughn & Fuchs, 2003).

RTI is designed for students in kindergarten through high school. In order to focus on younger students, however, the Recognition and Response system was recently designed.

Recognition and Response

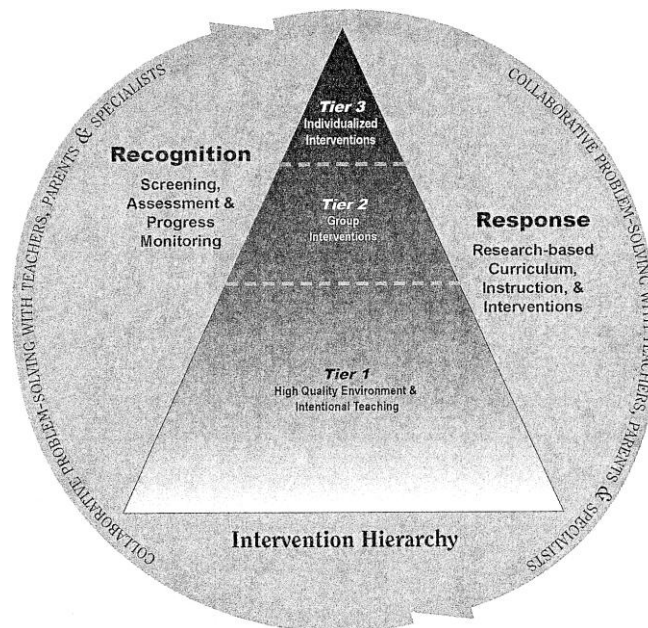
The conceptual framework for Recognition and Response (R & R) system is being developed through grant funding from the Emily Hall Tremain Foundation and through a collaborative effort with the FPG Child Development Institute, the National Center for Learning Disabilities, the National Association for the Education of Young Children, the Communication Consortium Media Center, and other key state partners (Coleman, Buysse, & Neitzel, 2006).

R & R is not a duplication of RTI. Instead, R & R benefits from RTI's empirical evidence and educational support (Winton, Buysse, & Zimmerman, 2007). See Figure 2.2 for a graphic of R & R.

The word recognition in R & R refers to the methods used to identify children before they begin formal education and who exhibit early signs of learning difficulties. These children may be at risk for learning disabilities when they are older (Coleman, Buysse, & Neitzel, 2006). The word response in R & R refers to the way parents and teachers respond to young children who are having learning difficulties and to the way young children respond to specific interventions (Coleman, et al., 2006).

R & R incorporates components of RTI such as collaborative problem-solving as well as linking screening, assessment and progress monitoring with research-based curriculum, instruction, and interventions (Coleman, et al., 2006). However, there are a few differences between the approaches. First, RTI is based on three components: 1) multi-tiers of interventions with increasingly intense interventions; 2) a problem-solving method which provides a step-by-step process to identify and analyze problems, develop a plan, and evaluate the effectiveness of interventions; and 3) integrated data collection and assessment system to guide decision making in each tier (Coleman, et al., 2006). R & R is based on four components: 1) an intervention hierarchy; 2) screening, assessment, and progress monitoring; 3) research-based curriculum, instruction, and focused interventions, and 4) a collaborative problem-solving process for decision-making (Coleman, et al., 2006). Moreover, R & R includes parents as information sources, while RTI does not. R & R includes high quality environments as well as teaching in Tier 1; RTI does not include environments (Coleman, et al., 2006).

Figure 2.2. Recognition and Response System for Early Intervening, (Coleman, Buysse, & Neitzel, 2006)



With R & R, together parents and teachers identify early warning signs which may indicate that a young child may not be learning in an expected manner and to respond in a manner that will have a positive affect on a child’s early school success (Zimmerman, 2007). The R & R system emphasizes assessing the overall quality of learning experiences of all children which includes day-to-day instruction, making program modifications, tailoring instructional strategies, and providing appropriate supports for individual children who struggle to learn (Zimmerman, 2007).

The goal of R & R is to create high quality early childhood classrooms and teachers. Teachers screen all children. Research-based interventions are implemented, and individual children are monitored if they show early signs of learning difficulties (Winton, Buysse, Zimmerman, 2007).

The collaborative problem-solving process for decision-making uses assessments to make decisions and creates a dynamic link between the recognition and response components. The problem-solving process is systematic and collaborative. It is used by teachers, parents, and specialists to make decisions about instruction and to evaluate the effectiveness of the decisions for individual children (Coleman, Buysse, & Neitzel, 2006). At this time, measurement instruments for R & R are in the validation process. R & R has significant implications for future early identification of young children who may be at-risk for learning difficulties.

Summary of the Assessment Process

The assessment process for early childhood special education determines the need for special education for young children with disabilities and their families. The assessment process for preschool children, ages three to five may be a traditional process that includes Child Find, screening, multidisciplinary evaluation, and planning individual programs.

Conversely, rather than determining whether a child has a learning disability using the controversial discrepancy model, RTI is currently the model recommended. RTI addresses appropriate classroom instruction and intense intervention sessions before identifying a student with an LD. The benefits of RTI include intervention at the classroom level, identification of children who are at-risk for LD, early identification and instruction, and a strong focus on student results. The R & R system is designed to recognize early warning signs of learning difficulties for younger children.

Early Childhood Teachers' Personnel Preparation

Pre-kindergarten teachers differ from K-12 teachers in their preparation content, career classifications, working situations, and employment agencies (Saracho & Spodek, 2003). Teachers must have a solid foundation in how to teach early language development and early

literacy skills (Lyon, 2004). Early childhood programs and preschools include a diverse group of children who are increasingly more apt to be diagnosed with developmental delays and disabilities (Buell & Peters, 2003). Since development is not always linear, preschool teachers need to know and understand atypical as well as typical developmental patterns.

Because phonological skills, in particular, develop slowly over time and in a predictable manner, teachers must be knowledgeable of this sequence and its timing so that they can recognize when a child is not following the typical sequence (Shaywitz, 2003). Developmentally appropriate practice and adaptive teaching are important skills for every pre-kindergarten teacher to know and utilize (Buell & Peters, 2003).

After the National Reading Panel (1986) developed rigorous scientific criteria for evaluating reading research, they identified the most effective teaching methods (Shaywitz & Shaywitz, 2004). Their findings indicate that in order for children to learn to read, children must be taught concepts, such as the alphabet, phonemic awareness and phonics, reading fluency, vocabulary, and strategies for reading comprehension (Lyon, 2001; Shaywitz & Shaywitz, 2004). Dickinson and Sprague (2001) found that providing high quality professional development opportunities for preschool teachers resulted in the teachers' ability to incorporate recommended strategies into the curriculum. Their data also indicated that current approaches to preservice and in-service training for language and literacy advocacy is inadequate.

Gap between Research and Practice

Teacher knowledge of reading development is particularly important. Although reading intervention has been researched for many years, the findings from these studies have not “trickled down” to administrations and teachers and are not widely accepted or sufficiently influential in developing programs in the field (Lyon & Moats, 1997).

One explanation for this gap could be that it is necessary to “translate” research into “teacher-friendly” materials and procedures to fit into the real classroom (Abbott, Walton, & Greenwood, 2002). In the past, such issues as which teaching methods, which types of children, over what duration of time, and under what application, have limited the generability of intervention research (Lyon & Moats, 1997). In addition, many studies used vague and inconsistent criteria and did not include comorbidity information, which caused replication difficulty to determine specific treatment effects and outcomes. Without reliable replication studies, teachers cannot determine which approach may be most effective. Another suggestion for the gap between research and practice could be that a limited number of training manuals or training resources are available for teachers to implement evidence-based activities or curricula (Kratochwill & Stoiber, 2002).

Research in Teacher Knowledge and Training

According to Moats (2004), reading is a multifaceted process that involves several functional brain networks. Each of the following networks is engaged for a specific purpose: phonological processing, orthographic processing, morphologic processing, semantic processing, and syntax and discourse processing. While the brain is learning to read, each of these networks must be trained to perform its specific functions in a smooth, automatic manner. In order to train the brain, well-designed lessons must include explicit teaching about letters, speech sounds, phonics and spelling, vocabulary and comprehension (Moats, 2004).

It is imperative that preschool teachers, in particular, receive adequate training about reading and the knowledge and skill to teach reading. Preschool teachers represent an important, yet underutilized, resource to stimulate rich language and to develop literacy skills. Preschool teachers can be pivotal in the prevention of reading problems (National Research Council, 1998).

Also, ongoing professional development for teachers is essential for successful reading programs.

A study conducted by McCutchen, Abbott, Green, Beretvas, Cox, Potter, Quiroga, and Gray (2002) was designed to investigate teachers' development of phonological awareness knowledge. First, the researchers assessed the effect of phonological awareness on the participants' classroom curriculum and instruction and, ultimately, on their students' learning. Forty-four kindergarten and first-grade teachers and 492 kindergarteners and 287 first-graders participated in the study. The researchers collected extensive data regarding teachers' knowledge and beliefs about teaching reading and conducted extensive classroom observations. Concurrently, the children's literacy development was assessed four times during the school year in experimental and control classrooms. The teachers assigned to the experimental group attended intervention sessions which consisted of intensive instruction over two-weeks that involved all-day sessions with a team of university researchers. The intervention, held during the summer before the classroom observations, was designed to improve the teachers' understanding of phonology, and phonological awareness, and how it affected reading instruction. An outline of the sequence of phonological awareness development was included in the intervention.

The results of the McCutchen and colleagues' (2002) study indicate that the teachers' knowledge of phonology and orthography was very low. Moreover, the comparison between the experimental group's pre- and posttest scores in phonological awareness indicates that their knowledge of phonology did increase with the two-week instructional intervention.

The teachers' new knowledge of phonological awareness resulted in observable and sustainable changes in the experimental group's classroom practice (McCutchen et al, 2002). For example, the kindergarten teachers spent appreciably more time on activities directed toward

phonemic awareness, and the first-grade teachers spent significantly more time on comprehension instruction. These curriculum changes resulted in improved student learning. The control group teachers, however, did not show any significant change in their curriculum.

Abbott, Walton, and Greenwood (2002) investigated research-based practices that teachers use in their classrooms. They chose research in phonemic awareness because, at the time of the study, no known phonemic awareness curricula were published, and the teachers were unaware of any research on this topic. First, the authors asked two experienced kindergarten teachers to implement some classroom activities that had been cited in phonemic-awareness research. The teachers were asked to implement these activities without receiving training. To the researchers' surprise, the teachers could not implement the activities because they lacked basic knowledge of phonemic-awareness concepts and skills necessary to teach phonemic awareness. Interestingly, it seems after an individual learns phonemic-awareness skills and links them to oral and written language, the person uses these skills less and less frequently and eventually forgets them (Abbott, et al, 2002). Therefore, specific training in phonemic-awareness concepts and skills is necessary for teachers.

Next, Abbott and colleagues (2002) translated researched-based materials and procedures into "teacher-friendly" (p.6) materials that could be used in real classrooms. They trained the two kindergarten teachers in phonemic-awareness concepts and teaching skills and then adapted research procedures into step-by-step classroom activities for the teachers. The results of their study showed that the teachers needed constant consulting, training, and evaluating, and the classroom environment needed revising and reorganizing. However, the children's scores from pre- to post-test ranged from zero to 76%, with a mean improvement of 41%. The children who

made the least improvement were children who did well on the pre-test (Abbott, Walton, & Greenwood, 2002).

In a five-year study of reading instruction in high poverty, low performing, urban public schools, Moats and Foorman (2003) surveyed the knowledge of 50 kindergarten through second grade teachers, 41 second and third grade teachers, and 103 third and fourth grade teachers in reading instruction. Moats and Foorman found gaps in teachers' insights about learning to read. Although one-third of early elementary teachers had acquired basic understandings about the reading process, 20% of these teachers demonstrated very limited knowledge of information required for elementary certification. Another 45% showed only a partial concept of language and reading development. However, teachers who attended summer institute and after-school courses measurably improved their content and disciplinary knowledge. This knowledge, in turn, improved children's reading outcomes. These and other findings indicate that teachers, as well as children, require explicit instruction in phonological awareness in order to appropriately teach it and see improvement in children's reading ability. These findings also suggest the importance of prekindergarten teachers who are trained in early reading instruction so that young children will be ready to learn to read in kindergarten.

According to the National Research Council (1998), preschool programs should be designed to provide the best possible support for cognitive, language, and social development, including intervention for children at-risk for reading difficulties. Although major advances have been made in understanding cognitive bases of reading disability, these advances have not yet had a significant impact on teacher preparation (Mather, Bos, & Babur, 2001). Hence, it seems reasonable to conclude that preschool teachers should receive research-based instruction to aid

them in identifying signs that children are having problems learning early language and literacy skills.

Casbergue, McGee & Bedford (2007) found that the quality and quantity of teachers' interactions with young children during free play contributed to the largest gains in children's literacy accomplishments. In particular, when teachers joined the children in their play, the teachers extended the children's conversations and suggested writing activities, such as writing grocery lists, taking phone messages, or taking orders in restaurant centers. As a result of these interactions, the children engaged in conversations that included rich vocabulary as it related to the play theme.

As part of the NELP (2008) study, the panel investigated the literature on early literacy instruction. The categories of intervention are the following:

- Code-focused interventions – interventions designed to teach skills that crack the alphabetic code
- Shared reading interventions – interventions that involved reading books to children, simple shared reading, and reader-child interactions, such as dialogic reading
- Parent and home programs – interventions using parents interventionists, including interventions that taught parents instructional techniques to use with their children at home
- Preschool/kindergarten programs – studies evaluating any aspect of a preschool or kindergarten program
- Language enhancement interventions – studies examining the effectiveness of instructional efforts which improve young children's language development.

The shared reading interventions produced statistically significant effects on children's oral language and print knowledge. Parent and home programs interventions showed a moderate to large effect on oral language outcomes and general cognitive abilities. The preschool and kindergarten programs affected children's development of conventional literacy skills and early literacy skills with the largest affect on readiness. The language enhancement interventions increased children's oral language skills significantly, particularly with younger children. Hence, it is important to implement early intervention (NELP, 2008).

Summary of Early Childhood Teachers' Personnel Preparation

Based on studies investigating teacher knowledge and training in early literacy, more personnel preparation is needed. Since early literacy skills are essential for children to learn to read in kindergarten through second grade, preschool teachers must complete comprehensive training.

Literacy and the Early Childhood Classroom

The Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), was an ongoing study that focused on children's early school experiences from preschool through fifth grade. The ECLS-K provided information about children's status at entry to school, their transition into school, and their progression through fifth grade. The results of ECLS-K showed that children who attended more academically-oriented preschool programs (i.e. programs that focus on learning skills needed in kindergarten versus childcare-type only programs) had significantly higher scores in reading, math, and general knowledge in the fall of their kindergarten year than children attending less academically-oriented preschools (Lyon, 2002).

As early as 1984, Jacob described how kindergarteners engaged in spontaneous literacy activities, such as making lists. In 1987, Roskos found that 4-year-old children, independently,

pretended to read recipes, check out books, and organized literacy activities during free play time. Hall (1987) found that when print-rich environments were created in the home center of a nursery classroom, there was greater activity in this center. When cookbooks, recipe pads, writing tools, note pads, and newspapers were included in the center, the children used these materials appropriately in literacy-enriched play.

Following the lead of Jacob, Roskos, and Hall, Neuman and Roskos (2003) developed classroom design principles to create literacy environments within specific play centers that appealed to young children's play preferences. Following extensive observations, a typology was developed based on how children engaged in literacy play. Neuman and Roskos (2003) found that children engaged in literacy play 1) to explore various objects used in reading and writing; 2) to interact with others, to play games, and to record information in play; 3) to personalize, "that's mine!" 4) to authenticate (e.g. verifying information) or to model adult behavior in daily literacy-related activities; and 5) to transact, such as labeling or naming items, and making events more meaningful in play.

Based on their research, Neuman and Roskos (2003) established a set of design principles for early childhood classrooms. Sufficient space is important (at least 25 square feet per child) for quality interactions and activity, and open-spaced classrooms for freedom of movement. The physical organization of the classroom is equally important. Smaller, well-defined areas, or centers, encourage more language and conversations with peers and adults.

Language and print awareness are improved when objects are clustered together to create a theme. As children play, they use the print resources that are associated with the play (Hannon, 1995; Heath, 1983; Mason & Au, 1990; Strickland & Morrow, 1989; Sulzby & Teale, 1991). According to Neuman and Roskos (2003), literacy items should be appropriate, i.e. able to be

used naturally and safely by young children; authentic, i.e. a real item in the child's general environment; and useful to children as they imitate literacy behavior.

Authentic literacy-rich play settings such as grocery stores prompt more interest, language, and use than banks, because children are perhaps more familiar with grocery stores than banks (Neuman & Roskos, 2003). In these settings, children tend to engage in more complex interactions (Neuman & Roskos, 2003). Further, literacy-rich play settings reflect Vygotsky's theory of intellectual development through social experiences.

Vygotskian Theory

In discussing his concept of zone of proximal development (ZPD), Vygotsky (1978) observed that social interaction was crucial in the learning process that relies on two people - one who is more knowledgeable about the material (the teacher) and the other who is learning the material (the student). Consequently, learning and cognitive development are improved when the student can work with an adult or other more advanced children during learning.

Well-trained teachers can provide additional learning strategies. These strategies include Vygotsky's scaffolding and ZPD. Scaffolding requires teacher assistance during the early stage when a student learns a task such as shopping for groceries. Zone of proximal development is based on the difficulty level of material or task (Lerner, 2003). Often, when the task is too difficult, children fail to complete the task which, in turn, causes a break down in learning (Lerner, 2003). With scaffolding, the teacher can assist the student by breaking down the components of the task or material into smaller parts that are easier for the student to grasp. For example, while a child is learning to read, the teacher can support a child of any age to sound out words phonetically in a conscious, deliberate manner to decode the words. Eventually, the child

will be able to complete the process independently and will become more effective and automatic (Lerner, 2003).

Steinhaus (2000) conducted a study to examine language as a function of children's specific learning of phonemic and alphabetic knowledge. Also, emphasized in the study was the Vygotskian concepts that learning is constructed through interaction within a defined social context, i.e., children acquire literacy through conversations and supported through activities in literary events.

Steinhaus' participants were three four- and five-year old children who met the study's criteria established by the school district. The data collected (based on classroom observation of children) were the dialogues of the teachers and children as they related to phonemic awareness. Steinhaus found that the teacher and the child engaged when there was a mismatch between the child's level of functioning and the classroom context, i.e., the child's ZPD.

Summary of Literacy and the Early Childhood Classroom

Pre-kindergarten classroom designs with literacy environments provide natural opportunities for children to engage in literacy activities such as making lists, pretending to read, and writing notes. When the teacher is a participant in the play setting, young children's ZPD can be expanded through the social interaction.

Importance of Preschool Classroom Design

Environments are not passive wrappings, but, rather, active processes, which are invisible. The ground rules, pervasive structure, and overall patterns of environments elude easy perception. –Marshall McLuhan

The physical environment of a preschool classroom has a compelling force over the quality and quantity of children's oral language experiences. This environment, in turn, affects early literacy skills (Justice, 2004). Classrooms that are developmentally appropriate and

literacy-focused encourage children to look at books alone and with adults, to converse with adults and other children, to write and learn about the features of books and about print, and to engage with letters of the alphabet and their sounds (Missall, McConnell, & Cadigan, 2006). The play setting allows young children to practice, elaborate, and extend early literacy skills (Morrow & Rand, 1991).

Classrooms that have word walls, poems, the daily schedule, children's own written work, the alphabet on the wall and by the writing table, and class rules support early literacy (Downing, 2005). Consequently, the physical design must be language-rich and must provide opportunities to facilitate diverse aspects of language content and use (Justice, 2004).

The reading area should be designed so that each child can easily access reading material. This area can be decorated with bright posters that encourage reading and contain comfortable beanbag chairs or large pillows on a carpet (Downing, 2005). Along with a large variety of books, a CD player or tape recorder with headphones could be available for listening to stories (Skouge, Rao, & Boisvert, 2007). The idea of this reading area is to create a welcoming environment for the children so that reading is perceived as a relaxing and entertaining activity (Downing, 2005).

Four key attributes of the preschool classroom have been identified to facilitate language learning and use. 1) The classroom should be organized to emphasize open space; 2) Centers should be clearly identified throughout the classroom (e.g. dramatic play, blocks, and science); 3) A variety of materials should be easily accessible to the children to encourage creativity and problem-solving; and 4) Complex dramatic play settings should be created (e.g. a restaurant, a doctor's office, or an airport.) These should be rotated frequently to provide opportunities for diverse experiences (Roskos & Neuman, 2002).

Morrow (1990) conducted a study to determine if environmental changes in specific early childhood centers and teacher behaviors would increase the number of spontaneous literacy behaviors. In particular, she looked at young children's book browsing, pretend reading, writing, and paper sorting during free-play activities. Thirteen middle class preschool or kindergarten classes were randomly assigned to one of four groups. The groups were assigned as follows: the paper, pencil and books with adult guidance group; thematic materials with adult guidance group; thematic materials without adult guidance group; and traditional curriculum control group.

In the paper, pencil and books with adult guidance group, teachers added literacy-related materials into the block and dramatic play centers such as magazines, books, different types and sizes of paper, construction paper, a stapler, blank booklets, pencils, markers, colored pencils, and crayons. Initially, the teachers modeled the use of the materials when they were first introduced. The teachers reminded the children of the materials and their uses to the children at each free-play period (Fratt, 2005; Morrow, 1991).

In the thematic materials with adult guidance group, the dramatic area was designed as a veterinarian's office with a waiting room, chairs, magazines, books and pamphlets about animal care, posters of pets, office hours notices, a "No Smoking" sign, a nurse's desk with patient forms on clipboards, a telephone, a telephone book, appointment cards, and a calendar. Teachers assisted the children in the use of the materials during free-play times. Teachers also modeled the use of the materials when they were first introduced (Morrow, 1991).

In the thematic materials without adult guidance group, the dramatic play area was set up exactly as the thematic materials with adult guidance group. However, the materials were only mentioned. The teachers did not model how to use the materials (Morrow, 1991).

In the traditional curriculum control group, the teachers made no changes to the dramatic play areas. The teachers did not recommend any literacy behaviors that the children could use (Morrow, 1991).

The results of the study (Morrow, 1991), based on statistical analysis, indicated a significantly greater number of behaviors demonstrated by children in the paper, pencil and books with adult guidance group and the thematic materials with adult guidance group than the thematic materials without adult guidance group and the traditional curriculum control group. Morrow concluded that children will engage with literacy materials with teacher guidance.

Christie and Enz (1992) found similar results in their study. When literacy materials were added to play centers, children only engaged in these materials when they were encouraged to do so by the teachers.

Farran, Aydogan, Kang and Lipsey (2006) conducted a study using the Child Observation in Preschools (COP) instrument which described the materials with which children engaged. The COP was designed to measure the frequency of children's engagement with literacy materials. The criteria for coding children's engagement were reading, writing, and paper handling and were based on Morrow and Rand's (1991) definition of literacy behavior. The variables obtained from the checklists used were the degree of literacy emphasis in the physical classroom environment and the degree of emphasis on literacy in the teacher-provided instruction. The variables taken from the COP were the number of times a child was observed holding or attending to a literacy material or activity and the level of involvement or degree of engagement the child showed in that activity or material (Farran, et al., 2006).

The results of their study indicated that children engaged with literacy-type materials more frequently in classrooms with a strong literacy-related physical environment. In addition, children actively interacted with literacy materials that the teachers mentioned.

According to the National Association for the Education of Young Children (NAEYC) (2000), children over four years of age are likely to be in center-based environments. Moreover, studies such as the Carolina Approach to Responsive Education (1987), the Infant Health and Development Program (1992), and the Comprehensive Child Development Program (1998) (Barnett, 2003) have shown that program quality is important to children's early literacy and overall development (Dickinson & Sprague, 2003). Defining and assessing the quality of early childhood programs has been a complicated process. However, across several standard measures of child-care quality include classroom environment (support for learning), teacher-child interactions, and curriculum/language and literacy support (Dickinson & Sprague, 2003). Unfortunately, researchers have found that the quality of early childhood programs is low in promoting language and literacy (Dickinson & Sprague, 2003). The programs that were studied (Burchinal, Roberts, Riggins, Zeisel, Neebe, & Bryant, 2000) indicated few opportunities for literacy learning. The previously mentioned studies indicate that children's experiences in classrooms can affect children's language and literacy development (Dickinson & Sprague, 2003).

The Early Language and Literacy Classroom Observation Instrument

The Early Language and Literacy Classroom Observation Instrument (ELLCO) (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002) instrument was developed for use in teacher training programs, program monitoring, program evaluation, program improvement, classroom quality, and professional development. Studies found that children's conversations were

elaborated and their vocabulary increased when indicators in this instrument were used to guide the physical components of the classroom and the interaction activities. In addition, with ELLCO, children developed an understanding of the letters of the alphabet and their sounds and the relationship between language and print.

Dickinson & Sprague (2003) used the Early Language and Literacy Classroom Observation Instrument (ELLCO) to evaluate the quality of Head Start programs. They measured children's receptive vocabulary and early literacy scores. The strongest effect found using the ELLCO reflected language experiences in preschool classrooms affect vocabulary and early literacy and changes during the preschool years have long term effects (Dickinson & Sprague, 2003).

The Ohio Department of Education (ODE) used the original ELLCO to help programs plan for continuous improvement and to help the ODE to evaluate the effectiveness of professional development and program supports provided by the department (Retrieved from <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=761&ContentID=7987&Content=7987> on March 22, 2007). Therefore, the ELLCO has been used in a statewide system to train pre-kindergarten teachers in ways to enhance early literacy skills (Justice, 2004; Snow, Burns, & Griffin, 1999; Warash, Markstrom, & Lucci, 2005).

Most recently, Gettinger & Stoiber (2007) used the ELLCO and components of RTI in their Exemplary Model of Early Reading Growth and Excellence (EMERGE) program. Ball & Gettinger (2009) used the original ELLCO to evaluate early childhood classrooms. They used the ELLCO to observe kindergarten classrooms during early literacy instruction in each classroom. Then, one or two days later, teachers were interviewed using the interview component of the ELLCO.

Since this study began, the ELLCO instrument was revised. The new ELLCO instrument no longer contains the Literacy Environment Checklist (LEC). Instead, the entire instrument consists of Likert scale evaluations of five sections: Classroom Structure, Curriculum, The Language Environment, Books and Book Reading, and Print and Early Writing. The Likert scale ranges from 1 to 5: one – deficient, two – strong, three – basic, four – inadequate, and five - exemplary.

Summary of Importance of Preschool Classroom Design

The preschool classroom environment affects early literacy skills by allowing children to practice, elaborate, and extend their early literacy skills (Justice, 2004). Language development enhances early literacy skills. In using the ELLCO instrument, studies found that children's conversations were elaborated and their vocabulary increased. In addition, with ELLCO, children developed an understanding of the letters of the alphabet and their sounds and the relationship between language and print.

Summary of Literature Review

There are two important points about preschool children and early literacy. First, teacher training is important to identify and teach preschool children early literacy skills. Teachers can make a difference in the success or failure of a reading program (Shaywitz & Shaywitz, 2004). Interventions that improve teacher knowledge and skill of early literacy and early identification can make the difference of whether a child who is at-risk for later reading problems is successful or not (National Research Council, 1998). Preschool teachers are pivotal in teaching early literacy skills, and therefore, must understand how reading develops, how to teach early reading skills, and how to identify children at-risk, (Lyon & Chhabra, 2004). Thus, preschool teachers must receive appropriate training in early literacy techniques and curricula. Second, preschool

classroom design enhances early literacy skills. Instruments such as the ELLCO are beneficial in teacher training, improving classroom design, and early literacy enhancement.

CHAPTER III

METHODOLOGY

Introduction

Prekindergarten is the ideal place to provide language and literacy experiences because the curriculum is based on small groups, one-to-one teacher-child interactions, and child-initiated activities (Morrow, 2005). Providing language and literacy opportunities for children in prekindergarten includes integrating appropriate literacy activities throughout the prekindergarten curriculum and environment. However, providing literacy activities is not enough. Teachers need to know how to teach early language development and early literacy skills (Lyon, 2004).

This study is based on Tier 1 of Response-to-Intervention (RTI) to address classroom design for early literacy (Fuchs, Fuchs, & Compton, 2004). In RTI, if the classroom and instruction within the classroom are not deemed appropriate for students to learn, an intervention plan is implemented where training is provided to teachers to develop a stronger instructional program. Thus, one of the first steps in Tier I is to evaluate the environment to determine teachers' knowledge of early literacy and how they use it in the design of their classrooms. To evaluate the classroom design the following research questions will be addressed in this study:

RQ1: To what extent do prekindergarten teachers design their classrooms to enhance early literacy?

RQ2: On what do prekindergarten teachers base their decisions when designing their classrooms to support early literacy?

Variables

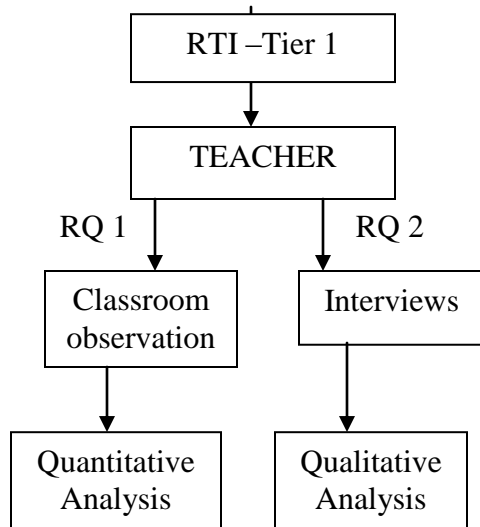
The dependent variables are: 1) the extent of appropriate classroom design and 2) the extent of application of teacher training in classroom design. The extent of appropriate classroom design was determined through observations of each school classroom using the Literacy Environment Checklist (LEC) which is a component of the Early Language and Literacy Classroom Observation Checklist (ELLCO) (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002). The extent of training in classroom design and early literacy was determined through teacher interviews. To assure reliability and validity, a trained colleague simultaneously observed the classroom using the LEC, and two other colleagues coded and categorized the interview transcripts.

The purpose of this study is to investigate the degree to which prekindergarten teachers received training in early literacy and how they used this training to design their classrooms to enhance early literacy. In preschool programs, due to the center-based focus, the design of the classroom is critical. Materials used in each center and the placement of the centers are important to the classroom environment.

Study Design

This study used a mixed methods design which relies on a combination of observations and interviews to provide an in-depth understanding of teachers' training in early literacy and how they used that knowledge to design their classrooms. See Figure 3.1.

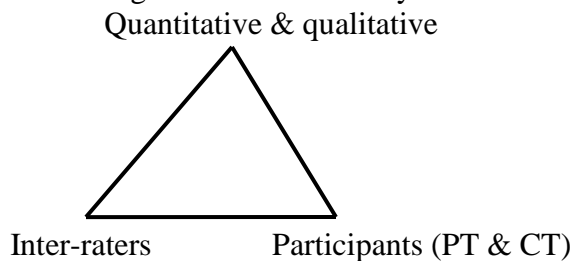
Figure 3.1. Research questions (RQ) 1& 2 designed as a mixed methods study.



Validity

Triangulation is the use of a combination of sources which increases validity because no one type of data collection and analysis is perfect. The strength of one approach can compensate for the weaknesses of another approach (Patton, 2003). Triangulation also helps control for researcher’s bias. For this study, triangulation consisted of simultaneously collecting both quantitative (LEC scores) and qualitative data (interviews), merging the data, and using the results to best understand the problem (Creswell, 2005). In addition, triangulation consisted of the use of two classroom observers and two interview analyzers.

Figure 3.2 Triangulation for this study



Sampling

Research Sites

There were a number of steps that were taken in order to access the participants needed for this study. First, this study received Institutional Review Board approval to collect data (Appendix 3.1). Second, the Orleans Parish Recovery School District (RSD) Director of Early Childhood provided written permission to conduct the study in RSD schools (Appendix 3.2) and provided a list of RSD schools that have prekindergarten classrooms (Appendix 3.3). Permission from other necessary RSD school administrators, i.e. the Directors of Elementary School Principals, Curriculum and Instruction, and Charter Schools was also gained (Appendix 3.4). Third, a random number chart was used to select five schools from the list of RSD schools and two RSD charter schools (Appendix 3.5). When access to schools could not be achieved via the random number chart, snowball sampling was used to identify specific sites. With snowball sampling, a participant who fits the profile is suggested by another group or participant. This strategy is used in situations where the participants sought are not part a specific group, but instead are scattered throughout the population, e.g. RSD charter schools (McMillan & Schumacher, 1997). The researcher asked colleagues to suggest three charter schools with prekindergarten classrooms. For all schools, as they were selected, a letter from this researcher (Appendix 3.6) was sent to each principal to confirm and approve the interview of one prekindergarten classroom teacher in each school and observation of the classroom environment. The randomization or snowball sampling continued until ten teachers from RSD traditional public and charter schools were selected who met the inclusion criteria.

Participant Selection

Prekindergarten teachers served as participants for the study. Inclusion criteria for teacher participation were: 1) teacher certification in early childhood, early intervention, or elementary education 2) prekindergarten classroom teacher for at least two years, and 3) current classroom contains at least ten prekindergarten children. The process of recruiting participants began by securing permission from each school principal via the letter described above. The principal chose the teacher to participate if there was more than one qualified prekindergarten teacher in a school. Then, each teacher was contacted by phone or email. In addition, each teacher signed an informed consent form before the interview began (Appendix 3.7). Each teacher received a \$50.00 stipend for participating in this study. The stipend was intended as a token of appreciation for teacher's professional time, as well, as an incentive for teachers to participate in the study.

Instrumentation

For RQ1, the researcher observed 10 prekindergarten classrooms using the LEC component of the ELLCO (Appendix 3.8). Classrooms were observed based on 24 items which are divided into five rating categories (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002; Smith & Dickinson, 2004). The categories were Book Area, Book Selection, Book Use, Writing Materials, and Writing Around the Room.

The LEC is designed for prekindergarten to third grade classrooms. It can be used to improve professional development and to compare teachers' practices with others (Justice, 2004; Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002). This instrument is appropriate for children with and without disabilities and is culturally sensitive. (A complete description of the LEC is provided in chapter 2.) Scoring the checklist includes some items that require a Likert

scale and some items that require a yes or no response. The scores were calculated to provide a subtotal for each observation category and the subtotals were then added to obtain a final score for the checklist (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002; Grace, Bordelon, Cooper, Kazelski, Reeves, & Thames, 2008).

For RQ2, the researcher interviewed each of the 10 teachers in the sample to ascertain the amount of literacy training they received, as well as, how that training had been used to make decisions in the teachers' classrooms. The interviews were open-ended with questions designed to address the research concerns.

Data Collection Procedures

The teachers were contacted via email or phone to set up observation dates. Just prior to the data collection, the teacher was informed that observations would take place first and last approximately 20 minutes, and the interview (20 – 30 minutes) would occur next and would be audio-taped. The teacher was also told that the interview would help complete the information gathered during the observation. At this time, the teacher signed the consent form. She/he remained in the classroom during the observation, but there was no communication with her/him. The following sections discuss each step: the classroom observation and the interview.

Observations using the LEC

To ascertain whether prekindergarten classrooms are designed to enhance early literacy, the researcher observed each classroom using the LEC (Smith, et al, 2002) (Appendix 3.16). The observations were conducted in the classroom after the children left for the day. Approximately 20 minutes was needed to complete each observation. Both the primary researcher and the trained colleague (co-observer) individually completed the LEC.

The strengths of observation research are that observations are relatively unobtrusive, are reliable for low inference observations, and alleviate social desirability (when participants do not answer honestly to appear normal and subject effects or when participants alter their behavior to respond more favorably) (McMillan & Schumacher, 1997). Hence, observational data allows the researcher to understand a program to an extent that is not possible using only insights of others from interviews (Patton, 2002).

Literacy Environment Checklist

The LEC data is descriptive, factual, and accurate (Smith, et al, 2002). It focused on amounts (more and less, larger and smaller, similar and different) of the characteristics displayed by the results of the LEC (Thomas, 2003; Grace, Bordelon, Cooper, Kazelski, Reeves, & Thames, 2008).

Each choice on the LEC is a quantitative indicator of presence or absence of criteria related to early literacy. Within each category, the questions are designed to get yes or no responses or to answer the “how many?” type of questions. For example, the question, “Is an area set aside just for book reading?” requires a yes or no response. However, the question “How many books convey factual information?” requires a numerical choice of one through three. In order to equalize reporting the results, yes/no responses were converted to numerical amounts, i.e. “yes” equaled one and “no” equaled zero. A response of “yes” received a score of one because it is considered to be best practice. A score of zero was equivalent to “no” because the recommended practice was not observed. Consequently, the observers scored a one or zero for each of the 14 observation items (Appendix 3.9). Some questions require a response to items in a Likert scale. The Likert scale range varied from a response of zero to three, one to three, or zero to two depending on the category. Scores were recorded during the classroom observation

and then transferred to the overall scoring sheet of the LEC where subtotals and totals were calculated.

While the researcher explained the observation and interview procedures to the teacher, the co-observer began the classroom observation using the LEC. The teacher remained in the classroom and completed the demographic information (Appendix 3.10) as the researcher began her observation. Both the researcher and co-observer made notations in the LEC margins to indicate specifics observed, for example, a list of titles of nonfiction books, titles of books that seemed to represent a theme, props in dramatic play, types of writing implements, etc. After the classroom observation was completed, the interview was conducted with the teacher in the classroom. The co-observer remained in the room but did not participate in the interview. When the interview was complete, the researcher and co-observer went to a different location, sometimes a coffee shop, to compare their observation scores. When there was a difference in their scores, they referred to their margin notes for clarification. They discussed the differences and came to consensus 100% of the time.

Observation Reliability

The researcher and a trained colleague observed each of the 10 prekindergarten classrooms using the LEC. The LEC is a useful tool for research and program development and has provided evidence that results from this measure are reliable and valid (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002).

This researcher trained two special education doctoral students as inter-observers in the use of the LEC checklist. As part of the training, the researcher and the two doctoral students individually observed three preschool classrooms at the University of New Orleans Children's Center using the LEC. After each observation, the group compared and discussed each other's

outcomes to establish inter-rater reliability. When scoring discrepancies occurred, the differences were discussed until a level of agreement was reached. During the first two observations, the scores for each item fell within one point of each other. By the third observation, there were no discrepancies. However, for the actual study observations, only one doctoral student assisted in observing all the observations. The second doctoral student was unavailable during data collection times due to work commitments.

Interviews

To ascertain the level of prekindergarten teachers' training in early literacy and classroom design, the researcher interviewed the prekindergarten teachers. Interviews are effective ways to understand another person's perspective. Interviews are used to find out about the interviewee's experiences and knowledge of the program (Patton, 2002). Thus, this method was appropriate for RQ2. Definitions of training are as follows: *Training in classroom design* is defined as the teacher having received specific training in classroom design with a focus on early literacy enhancement. This was measured through open-ended teacher interviews. *Training in early literacy* is defined as the teacher having received specific training in early literacy. This was measured through open-ended teacher interviews. The open-ended interviews were audio recorded.

A set of interview questions was predetermined with a majority (five of eight or 63%) of the questions based on the observations from the LEC. However, not all questions were asked of all the teachers. If a component of the classroom was not observed, a question was not presented to the teacher. For example, if the researcher did not find an area set aside for reading, then question number 2 (see below) was not asked. The interview questions are as follows:

1. Have you had any training in early literacy? In classroom design?

If yes, then how do you use this training in your classroom?

2. (If observed) I noticed that your classroom has an area that seems to be set aside for reading. How is this area used?

PROMPT: When do the children use the reading area?

Can the children choose to go to the reading center, or do you assign children to centers?

3. (If observed) I noticed that you have books in the classroom. How do you and the children use these books?

Is there anything that you do to encourage children to use the books?

4. How do you plan for and implement reading time?

PROMPT: Do the children participate in large group, small group, and/or individual reading sessions with a teacher or a peer?

5. (If observed) I see that you have computer(s) and/or a television in the classroom. How do you use this technology?

PROMPT: When do the children have access to computers and/or TV?

What types of programs are available for the children?

Do you think any of the computer programs encourage literacy development? How?

6. (If observed) I noticed that you have literacy materials in the dramatic play area.

PROMPT: If literacy materials are observed: How do the children use the literacy materials in this center?

7. Do you change your dramatic play area often?

What are some centers that you have created?

Why did you choose those?

8. (If observed) I noticed that you have opportunities for children to practice writing.

How do children use these opportunities?

PROMPT: If no writing opportunities observed:

Do you engage the children in writing? Do they write independently?

These questions provided information about how the teachers used their training in early literacy.

Data Collection Procedures Summary

The researcher and a trained colleague observed prekindergarten classrooms using the LEC. While the observations were being conducted, the teacher completed the demographic information. When the observations were complete, the researcher interviewed the teacher. The researcher and co-observer went to a different location to compare LEC scores. A consensus was achieved after a discussion of their differences, if any.

Data Analysis

This study used a mixed method design (Suter, 2006; Tashakkori & Teddlie, 1998) that incorporates components of quantitative and qualitative data and analyses. As such, both quantitative and qualitative data were collected separately but consecutively (Onwuegbuzie & Johnson, 2006). After data collection, data analysis and inferences were established from the separate parts of the study. An integrated inferential process was used to examine the separate quantitative and qualitative data and findings (Onwuegbuzie & Johnson, 2006; Suter, 2006). Combining quantitative and qualitative methods in this manner resulted in using the complementary strengths of both methods by putting together different approaches and strategies in multiple and creative ways (Onwuegbuzie & Johnson, 2006).

Quantitative Analysis

Quantitative descriptive analyses for this study were based on the observation results from the LEC. Descriptive methods are presented in simple statistics and graphic displays. One of the most common presentations of descriptive methods is measures of central tendency which summarizes a group of observations/scores into a single score (Tashakkori & Teddlie, 1998). For this study, mean and standard deviation scores were used. Each category of the LEC was compared across ten classrooms. Through the comparisons, classrooms with the least (minimum) and most (maximum) total scores were defined. The minimum score indicates the lowest possible attainable score for each category, and the maximum score indicates the highest possible attainable score for each category. For example, the Design measurement subscale included all items from the Book Area and Book Selection categories of the checklist (Table 3.1). The Use measurement subscale included Book Use, Writing Materials and Writing Around the Room categories. The Design measurement subtotal and the Use measurement subtotal equal the Total score. The following table is an example of the organization of the data.

Table 3.1. Descriptive Statistics for the LEC Scores.

Classrooms	1	2	3	4	5	6	7	8	9	10	Mean	Std Dev	Min	Max
Design Measurement														
Book Area														
Book Selection														
Design Subtotal														
Use Measurement														
Book Use														
Writing Materials														
Writing Around the Room														
Use Subtotal														
Total score														

Qualitative Analysis

The data from the interviews were transcribed and analyzed into codeable textual themes using the constant comparative method (Suter, 2006). This analysis resulted in “well-defined categories and clear coding instructions” (Suter, 2006, p. 330) to find emerging patterns or themes within individual teacher’s responses. Content analysis consisted of identifying, coding, categorizing, classifying, and labeling the main patterns in the data (Patton, 2002). The researcher and the inter-analyzers coded separately but followed the same protocol. Then, they compared their themes.

Coding involved tags or labels for assigning units of meaning to the descriptive or inferential information that was collected during an interview (Miles & Huberman, 1994). Codes were attached to chunks of information, i.e. words, phrases, sentences, or paragraphs, from interview transcripts. The codes were used to organize the chunks of information which were then categorized based on developing themes related to particular research questions (Miles & Huberman, 1994). The qualitative data analysis led to the identification of themes that were similar to each other in some respect across classrooms and teachers (Onwuegbuzie & Johnson, 2006).

Interview Reliability

The audio-taped interviews were transcribed by an individual who is an editor with experience in transcribing audio tapes. To assure credibility of the results, each teacher had an opportunity to check the transcript to confirm the conclusions and interpretations of the researchers. This is called member checking (Tashakkori & Teddlie, 1998).

To assure reliability and validity of the inferences for the interviews, two inter-analyzers and the researcher independently coded the results. The first inter-analyzer conducted qualitative

research for his dissertation, thus, qualified to serve as an inter-analyzer for this study. The inter-analyzer read the methodology chapter for this study; therefore, he understood the significance of the themes as they evolved. Due to work constraints, this inter-analyzer could not complete the project. Therefore, a professor from the University of New Orleans became the inter-analyzer for the creation of the major themes after he reviewed all the transcripts and codes.

First, the researcher and the inter-analyzers reviewed each teacher's interview transcript independently to understand the rationale for her/his classroom design. Data content and transcripts were read and analyzed in an effort to find patterns or core consistencies and meanings, and were then coded. They discussed each others findings after the first four transcripts were reviewed. Next, the Interview Summary Form with Coded Themes (Miles & Huberman, 1994) (Appendix 3.11) was used for each transcript. This form helped to isolate salient points and theme codes. The codes were created based on each interview question. For example, "elt" meant early literacy training, and "lmic" meant literacy materials in centers. This analysis yielded a set of themes from which similar phrases were used to build a framework for analysis (Cresswell, 1998). After each interview, the analyzed data was cross referenced, tying each interview together and identifying similarities that came together in meaningful ways.

Patton (2002) discusses finding convergence by discovering what things interlock and by looking for "recurring regularities" (Patton, p. 465). Recurring regularities disclose patterns that can be sorted into categories. These categories are then organized by two criteria: *internal homogeneity* and *external heterogeneity* (Patton, 2002). In following this logic, two matrices were created for this study. One matrix displayed internal homogeneity which indicates similarities, i.e. data that comes together in a meaningful way (Patton, 2002) (Appendix 3.12). Another matrix displayed external heterogeneity (Patton, 2002), i.e., data that indicates

differences that were bold and clear (Appendix 3.13). The themes and codes were delineated by whether the themes answered RQ1 (classroom design and early literacy training) or RQ2 (use of training to design the classroom). Then, poster paper was hung on walls, and the themes were written so that recurring themes would “jump” off the paper and could be traced across teachers. Finally, a conceptually-ordered theme matrix was created to group subthemes into four major internal homogeneity themes. (Appendix 3.14) A matrix was also created for external homogeneity themes (Appendix 3.15). The inter-analyzers compared their themes for the first interview to determine how close their themes were for the interview. If their themes did not agree exactly, a consensus was reached to demonstrate inter-analyzer reliability. They conferred after the first four interview themes were coded to compare themes and again when all ten interviews were coded.

Summary of Methodology Procedures

Mixed methods were used to determine the research questions: RQ1: To what extent do prekindergarten teachers design their classrooms to enhance early literacy? RQ2: On what do prekindergarten teachers base their decisions when designing their classrooms to support early literacy? The LEC of the ELLCO was used to observe prekindergarten classrooms and interviews were conducted to ascertain the level of teachers’ training in early literacy and classroom design. Data analysis consisted of descriptive analyses based on the LEC observations and themes constructed from the interview analyses. For reliability and validity purposes, a co-observer and inter-analyzers assisted in the observation data collection and the coding and categorizing of the interviews, respectively.

CHAPTER IV

RESULTS

In prekindergarten, young children are provided language and literacy opportunities which include integrating appropriate literacy activities throughout the prekindergarten curriculum and environment (Morrow, 2005). Also important in young children's development of language and literacy skills is teachers' knowledge of early language development and early literacy skills (Lyon, 2004).

This study revolved around Tier 1 of Response-to-Intervention (RTI) to address teacher knowledge of classroom design for early literacy (Fuchs, Fuchs, & Compton, 2004). RTI addresses the need to assure that classroom design and instruction are appropriate in order for students to learn. If classroom design and instruction are not appropriate, then an intervention plan is implemented, and training is provided to teachers to develop a stronger instructional program. Thus, the first step in Tier I and in this study was to evaluate the classroom environment to determine teachers' knowledge of early literacy and how they used that knowledge in the design of their classrooms.

This study was a mixed method study (Tashakkori & Teddlie, 1998). Quantitative data addressed Research Question 1 (RQ1): To what extent do prekindergarten teachers design their classrooms to enhance early literacy? Classroom observations using the Literacy Environment Checklist (LEC) of the Early Literacy and Language Classroom Observation (ELLCO) resulted in quantitative descriptive measures of 24 items in five categories: Book Area, Book Selection, Book Use, Writing Materials, and Writing around the Room. The LEC also inspired the qualitative textual data from teacher interviews. The qualitative data addressed Research Question 2 (RQ2): On what do prekindergarten teachers base their decisions when designing

their classrooms to support early literacy? Cross-case analytical displays such as internal homogeneity and external heterogeneity matrices were constructed from the transcripts and conceptually-ordered matrices were created to analyze the data. Inferences from the respective parts of the study were integrated to provide the study's overall results.

Participants

Ten prekindergarten teachers were interviewed, five taught in the Recovery School District (RSD) traditional public schools and five taught in RSD charter schools. All teachers met the study's criteria: 1) All teachers were certified in an area of early childhood education. 2) All teachers at least 2 years teaching experience. 3) All teachers had ten or more children in their classrooms. See Table 4.1 for details.

Table 4.1. Demographic Data

Variable	Public Classrooms					Charter Classrooms					Total (n=10)
	1	2	3	4	5	6	7	8	9	10	
Race											
Caucasian	*					*					2
African-American				*	*		*	*	*	*	6
Asian			*								1
Hispanic		*									1
Age Group											
21-30						*					1
31-40											0
41-50	*			*	*			*		*	5
51-60		*	*						*		3
over 60							*				1
Teaching Experience											
2-4 years						*					1
5-9 years									*		1
more 9 years	*	*	*	*	*		*	*	*		8
Master's Degrees	*	*	*		*						4
Gender											
Females	*	*	*	*	*		*		*	*	8
Males						*		*			2
Certification											
Early Intervention			*								1

(with disabilities) (0-5 years)						*						1
Early Childhood (2004) (prek-3 rd grade)												
Early Childhood (prior to 2004) (4-5 years)	*	*	*	*	*			*	*	*		8
Elementary (prior to 2004) (1 st -8 th grade)	*	*	*	*	*		*	*	*	*		9
Nursery (prior to 2004) (0-3 years)	*	*	*	*				*	*	*		7

Table 4.1. Demographic Data (continued)

The racial make up of the participants was not diverse. The majority of the teachers were African-American. The teachers' ages stretched from a teacher in his twenties to one older than 60 years of age with 50% being in their forties. Their area of certification included early childhood. The four teachers with Master's degrees taught in the traditional public schools. Eight teachers had more than nine years of teaching experience; one teacher had five to nine years of experience; one teacher had two to four years of experience. The majority (8) of the teachers were female.

Teacher 1 had a Bachelor's degree from a local urban university and a Master's degree plus 30 hours from a different urban university. She was certified in nursery (1997), elementary (1981), and kindergarten (1981). Her early literacy training is from Creative Curriculum and professional development.

Teacher 2 had a Bachelor's degree and a Master's degree plus 30 hours from a local urban university. She was certified in elementary (1985), mentally disabled (1985), nursery (1992), kindergarten (1992), and noncategorical preschool disabled (1993). She did not have early literacy training.

Teacher 3 had a Bachelor's degree from a local urban university and a Master's degree from a different urban university. She was certified in nursery (1997), supervisor of student

teaching (2005) and early intervention (birth to five) (2005). She received early literacy training through Creative Curriculum, LETRS, and Sing-Spell-Read-Write.

Teacher 4 had a Bachelor's degree from a local urban university. She was certified in nursery (1987), kindergarten (1987) and elementary (1897). She received early literacy training from Creative Curriculum.

Teacher 5 had a Bachelor's and a Master's degree from the same local urban university. She was certified in nursery (1991) and elementary (1990). She received early literacy training from Creative Curriculum.

Teacher 6 had a Bachelor's degree from an out of state university. He was certified in prekindergarten (2007). He received early literacy training from Teach for America.

Teacher 7 has a Bachelor's degree from an out of state university. She is certified in elementary (2000) and prekindergarten to third grade (2003). She received early literacy training from Project Read and Writing to Read.

Teacher 8 had a Bachelor's degree from a local urban university. He was certified in nursery (1989), kindergarten (1989), and elementary (1989). He received early literacy training from Success for All and Harcourt Trophies.

Teacher 9 had a Bachelor's degree from a local urban university. She was certified in nursery (1987), kindergarten (1987), and elementary (1987). She was part of an Early Reading First study which incorporates the OWL, the ELLCO, and the Classroom Assessment Scoring System (CLASS), a coach and an interventionist. This teacher received the most comprehensive early literacy training.

Teacher 10 had a Bachelor’s degree from a local urban university. She was certified in nursery (2002), kindergarten (2002), and elementary (2003). She received her early literacy training from Project Read, Direct Instruction, and Open Court.

Quantitative Results

In order to answer RQ1, the LEC was used to assess the extent to which each classroom was designed to enhance early literacy. The data is presented based on 24 items in five categories: Book Area, Book Selection, Book Use, Writing Materials, and Writing Around the Room. Because the data broke out into two distinctive areas, these categories were organized into Design Measurement (Book Area and Book Selection) and Use Measurement (Book Use, Writing Materials, and Writing around the Room). As seen in Table 4.2 the Design Measurement scores were consistent across all classrooms. However, the Use Measurement scores were diverse across all classrooms.

Table 4.2. LEC Classroom Observation Scores

	Public Classrooms					Charter Classrooms					Mean	SD	Min	Max	
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10					
Design Msmt															
Book Area	3	3	3	3	3	3	3	3	3	3	3	0.0	0	3	
Book Sel	8	8	8	8	8	8	8	8	8	8	8	0.0	1	8	
Total Design	11	11	11	11	11	11	11	11	11	11	11	0.0	1	11	
Use Msmt															
Book Use	1	3	8	4	5	1	5	9	9	7	4.7	4.2	0	9	
Writing Mtl	5	6	7	7	8	8	6	8	8	6	6.9	0.7	0	8	
Writing @ Room	7	7	10	11	9	12	9	10	12	8	9.5	1.8	0	13	
Total Use	13	16	25	22	22	21	20	27	29	21	21.1	6.7	0	30	
Total Design & Use	24	27	36	33	33	32	31	38	40	32	24.6	6.7	1	41	

In Table 4.2, the Min (Minimum) column refers to the minimum score that a classroom could receive for each category on the LEC. The Max (Maximum) column refers to the highest score that a classroom could receive for each category on the LEC. Classrooms numbered one through five were RSD traditional public school classrooms, and classrooms numbered six through ten were RSD charter school classrooms. Total scores were calculated for each category and then for the combined categories.

Design Measurement

Design Measurement included all items from the *Book Area* and *Book Selection* categories of the LEC. Over all, classrooms scored 100% proficiency in these categories.

Book Area

The results for the *Book Area* category showed that all classrooms scored the highest possible score of three out of three on the LEC with 100% proficiency in the *Book Area* category. See Table 4.2. These scores indicate that all classrooms had the necessary components, such as a designated area for reading, a neat, orderly, inviting reading center that contained soft materials such as pillows, cushions, or comfortable sofas and chairs.

Book Selection

For the *Book Selection* category, the data showed that all classrooms scored the maximum points of eight out of eight on the LEC with 100% proficiency in the *Book Selection* category. These scores indicate that all classrooms had the necessary components, such as books ranging in difficulty, books easily available to the children, 26 books or more in the reading area, some books conveying factual information, and three or more books relating to the current theme.

Use Measurement

Use Measurement included all items from the *Book Use*, *Writing Materials*, and *Writing Around the Room* categories of the LEC. Table 4.3 depicts the overall proficiency percentages in the three categories. Across all classrooms, the classrooms scored the lowest in *Book Use* at 58% proficiency, and the classrooms had the greatest proficiency (86%) in *Writing Materials*. The classrooms scored 73% proficiency in *Writing Around the Room*. See Tables 4.2 and 4.3 for details. These scores indicate that the classrooms were missing components in each category.

Table 4.3. Overall Classroom Use Measurement Proficiency

Use Measurement Categories	Book Use	Writing Materials	Writing @ Room
Percent Proficiency	58%	86%	73%

Table 4.4. Use Measurements and Classroom Scores

Classrooms	LEC Scores							EL Training
	Book Use	Listening Center	Writing Materials	Word Cards	Writing @ Room	WM in Dramatic/Block Centers	Big Books	
1	1	Y	5	N	7	N	Y	PD, CC
2	3	N	6	N	7	N	S	none
3	8	N	7	N	10	N	Y	LETTERS, SRW
4	4	N	7	Y	11	Y	Y	CC, PD
5	5	N	8	Y	9	N	Y	CC
6	1	N	8	Y	12	Y	Y	TFA
7	5	Y	6	N	9	N	Y	PR,EL, WTR
8	9	Y	8	Y	10	Y	Y	SFA
9	9	Y	8	Y	12	Y	Y	OWL
10	7	Y	6	N	8	N	Y	PR, SFA, OP

Y = yes; N= no; S= some

PD = professional development
 CC = Creative Curriculum
 TFA = Teach for America
 PR = Project Read
 EL = Emergent Literacy
 WTR = Writing to Read
 SFA = Success for All
 OWL = Opening the World of Learning
 OP = Open Court

Book Use

The mean for *Book Use* was 4.7 and SD was 4.2. The minimum score possible was 0 and the maximum score possible was 9. Across all classrooms, classrooms 8 and 9 scored the highest possible total score of nine out of nine (100% proficiency). Across all classrooms, classrooms 1 and 6 scored the lowest total score of 1 out of nine (11% proficiency). Classroom 1 was a traditional public classroom, and classroom 6 was a public charter classroom. Both classrooms 1 and 6 scored below the mean. See Table 4.2 for details. These scores indicate that the majority of classrooms did not have books in centers other than the Book Area and five classrooms did not have a listening center.

Writing Materials

The mean for *Writing Materials* was 6.9 and SD was 0.7. The minimum score was 0 and the maximum score was 8. Across all classrooms, classrooms 5, 6, 8, and 9 received the highest possible score of eight out of eight (100%) on the LEC in this category. Again, classroom 1 scored the lowest score of five out of eight (63%). Again, classroom 1 scored below the mean. Eight was the maximum possible score, but 40% of the classrooms scored six or less. These scores indicate that 60% of the classrooms had most of the components on the LEC. For example, all classrooms had an alphabet posted in the classroom, and 9 classrooms had a distinct area set up and functioning for writing. Every classroom had a variety of paper and writing tools available for writing. Seventy percent of the classrooms had templates or tools to facilitate forming letters. Fifty percent of the classrooms had word cards with familiar names or words posted in the classroom.

Writing Around the Room

The mean for *Writing Around the Room* was 9.5 and SD was 1.8. The lowest possible score was 0 and the highest possible score was 13. Across all classrooms, classrooms 6 and 9 received the highest total score of 12 out of 13 (92%) on the LEC in the *Writing Around the Room* category. Classrooms 1 and 2 received the lowest score of seven out of 13 (54%). Yet again, classroom 1 scored below the mean. These scores indicate that all classrooms had children's writing on display around the room, and a large majority of the classrooms had alphabet puzzles and puzzles with words on them. However, 80% of the classrooms did not have writing props in the dramatic play center.

Overall Classrooms

Across all classrooms, classroom 9 scored the highest overall score of 40 out of 41 (98%) which indicates that this classroom had virtually all components at the highest levels on the LEC. The only question in which the full score on the LEC was not attained was "How many varieties of children's writing are on display in the classroom?" in *Writing Around the Room* category. The teacher missed one point because there were not six or more varieties of children's writing displayed in the classroom. This is an RSD charter school classroom, and the teacher was trained in and used the OWL (Opening the World of Learning) curriculum, which is an early literacy curriculum.

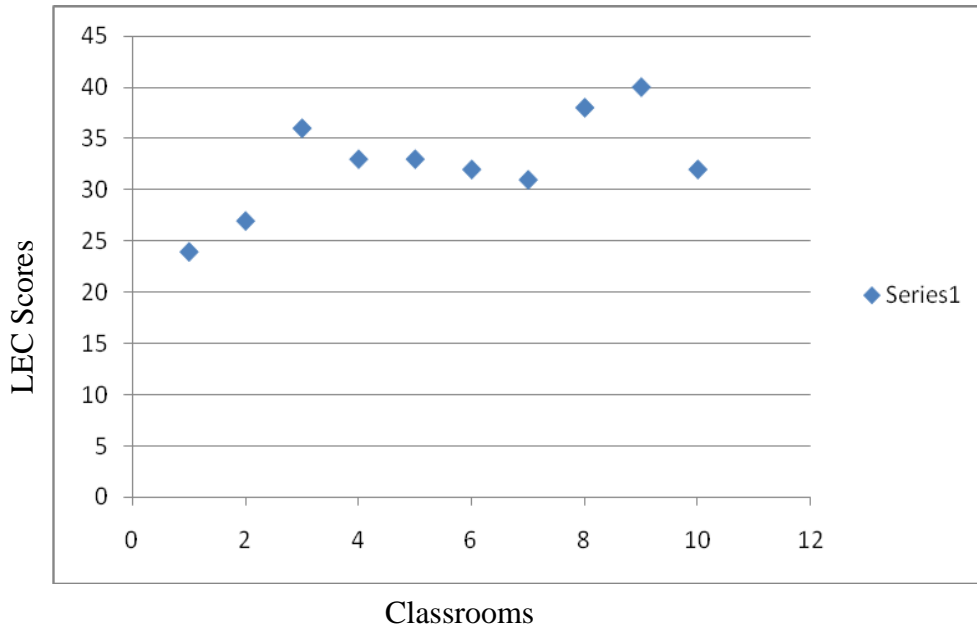
Across all classrooms, classroom one scored the lowest score with a score of 24 out of 41 (59%) which indicates that many components of the LEC were missing. This is an RSD traditional public school classroom, and the teacher was trained in Creative Curriculum and ECERS (Early Childhood Environment Rating Scale). She had a Master's degree plus 30 hours.

As Table 4.8 and Figure 4.1 indicate, 50% of the classrooms' total LEC scores (Design and Use Measurements) clustered between 31 and 33 points. Both RSD traditional public and charter classrooms clustered in this middle range. The two lowest scores are traditional public classrooms (1 and 2), and the two highest scores are charter classrooms (8 and 9).

Table 4.5. LEC Classroom Scores Sorted by Lowest to Highest Scores

Classrooms	1	2	7	6	10	4	5	3	8	9
LEC Total	24	27	31	32	32	33	33	36	38	40

Figure 4.1. LEC Total Scores Scatter Plot



Summary of Quantitative Data

Based on the Design Measurement data, all the prekindergarten classrooms were designed to enhance early literacy. However, based on the Use Measurement, the majority of the classrooms did not have many of the necessary components in the classrooms such as books in other centers and children's writing samples displayed. The classrooms scored the highest in the Writing Materials category and scored the lowest in Book Use.

Results of Qualitative Data

Teachers were interviewed to ascertain research question two which asks the question:

On what do prekindergarten teachers base their decisions when designing their classrooms to support early literacy? The data is presented in coded themes as internal homogeneity, or sameness across the classrooms, and external heterogeneity, or differences across the classrooms.

Internal Homogeneity

Four major themes evolved from the interviews across all classrooms. They were *varied types of training, varied types of centers that enhance early literacy, formal and functional reading time, and types of writing opportunities*. These themes were chosen because 60% or more of the teachers mentioned them in the interviews.

Varied Types of Training

Within the *Varied Types of Training* theme, two categories were investigated: early literacy and classroom design training. The specific tool/curricula that teachers reported is listed in Table 4.6.

Table 4.6. Internal Homogeneity – Varied Types of Training

Training Type	Classrooms										Total (n=10)	
	1	2	3	4	5	6	7	8	9	10		
Early Literacy												
Creative Curriculum	*	*		*	*							4
Direct Instruction										*		1
ECERS	*			*								2
Elementary Literacy						*						1
Emergent Literacy							*					1
LETRS			*									1
Open Court										*		1
OWL**									*			1
Prfl Development		*										1
Project Read**							*			*		2
Sing, Spell, Read, Write**			*									1

Success for All**								*			1
Teach for America						*					1
Writing to Read							*				1
TOTAL	2	2	2	2	1	2	3	1	1	3	19
Classroom Design											
Creative Curriculum	*		*							*	3
ECERS	*		*	*	*	*	*		*	*	8
Engineer Environ		*									1
Prfl Development	*										1
TOTAL	3	1	2	1	1	1	1	0	1	2	13
**Early literacy programs											

Table 4.6. Internal Homogeneity – Varied Types of Training (continued)

For Early Literacy Training, 90% of the teachers said they had some kind of training and 60% said they had two or more types of training. Five of the teachers (3, 7, 8, 9, and 10) reported specific training in an early literacy program, such as OWL. Most of the programs listed are not specific early literacy programs but rather embedded literacy into the training or curriculum, such as Creative Curriculum.

Forty percent of the teachers reported having training in Creative Curriculum. Classroom teacher 1 stated, “Funny you should ask that because I was just thinking about literacy from Creative Curriculum. They did a whole thing on literacy. We’ve also had in-services through the district, Orleans Parish.” The teachers also reported being trained in early literacy through a variety of other programs as listed in Table 4.9. None of the teachers reported training with the ELLCO.

For Classroom Design Training, eight out of ten teachers said they had Early Childhood Environment Rating Scale (ECERS) training, and three out of ten said they had two or more types training as listed in Table 4.9. Classroom teacher 6 stated, “... ECERS training by our

LA4 program monitor. She came in and gave us training for classroom design. There was also a conference about that at the same summit in Baton Rouge that I went to, along with my training with Teach for America.”

Varied Types of Centers that Enhance Early Literacy

For *varied types of centers that enhance early literacy*, every classroom had free choice centers, as well as reading, dramatic play, and home/housekeeping centers. See Table 4.7 for details.

Table 4.7. Internal Homogeneity – Varied Types of Centers

Internal Homogeneity	Total
Enhance Literacy	
Free choice centers	10
Reading centers	10
Dramatic play centers	10
Home/housekeeping centers	10
Change dramatic play themes	9

Ninety percent of the teachers changed or added to their dramatic play themes regularly. For example, teachers would change the dramatic play according to the seasons, e.g., Mardi Gras. Or, they would add new costumes to the housekeeping center when the theme changed, e.g., community workers. Classrooms 6 and 9 had unique dramatic play centers that enhanced early literacy. Classroom 6’s theme was springtime activities which included camping. A tent was erected in the classroom, and inside the tent were typical camping paraphernalia such as binoculars, sunscreen, a stool, and books about camping. See Figure 4.2.

Figure 4.2. Dramatic Play Campsite in Classroom 6

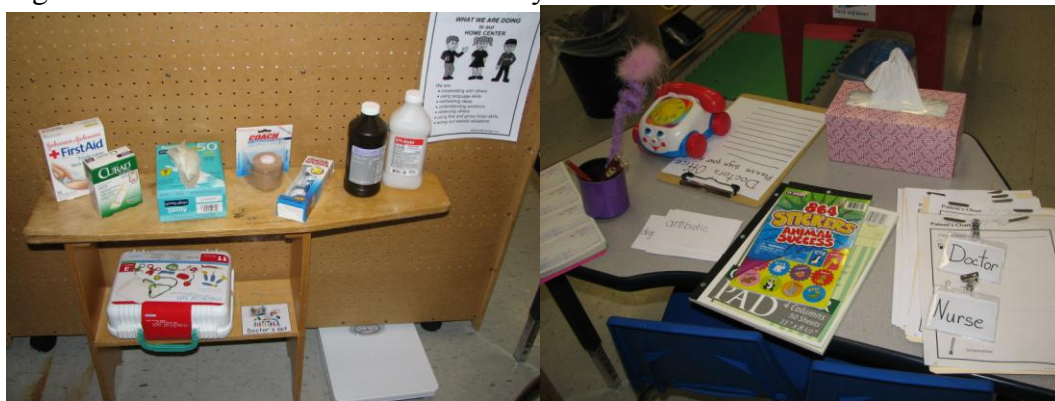


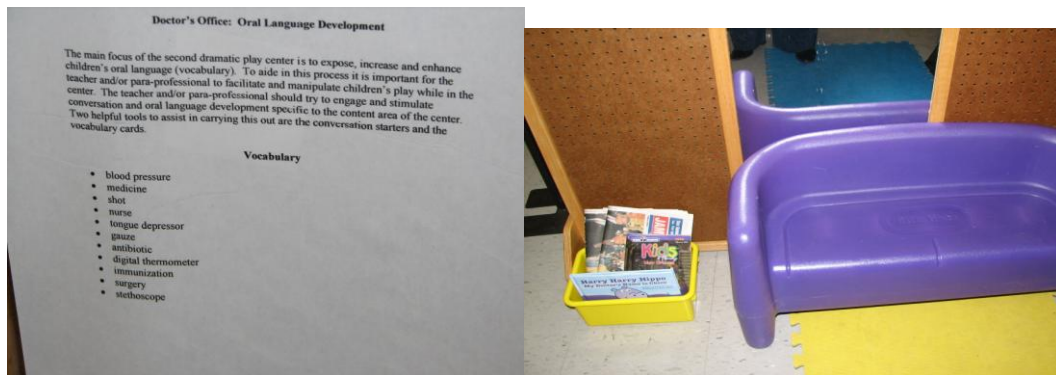
The classroom 9 teacher created a doctor's office dramatic play center with the help of the children. The teacher stated,

I always talk about what you do when you go to the doctor's, and what do they have there while you're waiting for the doctor? And finally someone says 'and books.'

And what do you do with the books? 'Oh, my mom reads the story.' Okay, so when we're making it up; we would put out the books and make sure we have all of those components into our center. See Figure 4.3 for details.

Figure 4.3. Doctor's Office Dramatic Play Center in Classroom 9





Formal and Functional Reading Time

For *types of planned reading time*, 80% of the teachers used some type of alternative reading strategy such as library time, singing, reading buddies, Prime Time Reading, pairs' sharing books, bringing in books from home, read alouds with OWL (Opening the World of Learning), and stories by theme. See Table 4.8 for more information.

Table 4.8. Internal Homogeneity – Formal and Functional Reading Time

Internal Homogeneity	Total
Planned Reading Time	
Alternative reading strategy	8
Multiple reading opportunities	7
Theme books & literacy activities	6

Seventy percent of the teachers provided multiple reading opportunities such as whole group, small group, and individual reading time. Teachers 3 and 9 used all three strategies. The other teachers used two or less types of strategies. Sixty percent of the teachers used theme-based books and did literacy activities. Classroom teacher 6 reported, "There is a time for large group, there is a time for storytelling, there is a time when we break down into small groups and also it's encouraged during center time. They do like to pair and share with the books, especially in the library center."

Types of Writing Opportunities

For *types of writing opportunities*, 90% of the classrooms had a functional writing center as reported by the teachers. See Table 4.9 for more information.

Table 4.9. Internal Homogeneity – Types of Writing Opportunities

Internal Homogeneity	Total
Writing Opportunities	
Functional writing center	9
Writing activities	9
Formal writing times	8

The same 90% of the teachers had some type of writing activities for the children such as writing in journals, creating own books, writing own sentences, circling the letter, and drawing pictures and writing about them. Also, 80% of the teachers had formal writing time in their schedules.

Classroom teacher 3 stated,

Formally, we do have a little handwriting time that goes with the letter. But, I do leave paper out for them just to do with whatever they want. Sometimes, we sit in small groups, and we let them tell stories to us. We write what they have drawn. So, we have some interesting stories around that we were teaching them beginning, middle, and end to the stories. They want to write it, we let them write. They want us to write, we write it.

External Heterogeneity

Two major themes evolved that were different across all teachers. They were *ongoing and consistent use of books* and *varied computer programs*. These themes were chosen because 30% or less of the teachers mentioned them. See Table 4.10 for details.

Table 4.10. External Heterogeneity – Ongoing and Consistent Use of Books

External Heterogeneity	Total
Use of Books	
Books sent home	1
Books in Baskets	1
Small Letter Story Books	1

Ongoing and Consistent Use of Books

For *ongoing and consistent use of books*, one teacher functioned differently than the other teachers. Classroom teacher 3 regularly sent books home with the children throughout the school year to create a home library. See Table 4.13. She said, “We give them a book sack; we put books in it. We tell them to make a library at home.” She also encouraged the children to read while they were waiting for the next activity by placing books in baskets around the room for easy accessibility. In addition, she used small letter story books to teach the children a new letter each week.

Varied Computer Programs Used

All classrooms had at least one computer in the classroom. As seen in Table 4.11, the *computer programs* used by 30% of the teachers were Hooked on Phonics and Reader Rabbit. One teacher used Early Reading Theory and another used EricCarle.com. Another teacher used Bailey’s Book House, Sammy’s Science, and Millie’s Math programs. Teacher 4 reported, “We watched EricCarle.com. We watched Eric Carle put together his caterpillar for his story, and then we did it. So, we watched that on the projector, and we did the same product, the same process that he did to create it.”

Table 4.11. External Heterogeneity – Varied Computer Programs

External Heterogeneity	Total
Computer Programs	
Hooked on Phonics	3
Reader Rabbit	3
Early Reading Theory	1
EricCarle.com	1
Bailey’s Book House	1
Sammy’s Science	1
Millie’s Math	1

Summary of Qualitative Data

Four major themes evolved from the internal homogeneity data. They were varied types of training, varied centers that enhance early literacy, formal and functional reading time, and varied writing opportunities. More than 60% of the teachers used these themes. Two classrooms had interesting and unique dramatic play centers. Two major themes evolved from the external heterogeneity data. They were ongoing and consistent use of books and varied computer programs. All the teachers had a computer in the classroom. Altogether, they reported using seven different literacy computer programs.

Overall Summary

Inferences from the quantitative and qualitative components of the study were integrated to provide the study's summary. Several points were confirmed by integrating the data. Specifically, during the interviews all the teachers said they had some type of training in classroom design which was confirmed by the perfect scores all the teachers received on the LEC for Design Measurement in the Book Area and Book Selection categories. These data answer Research Question 1. In addition, 90 % of the teachers stated that they had a functional writing center. This information was also confirmed by the LEC scores. These data partially addressed Research Question 2.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate the degree to which prekindergarten teachers received early literacy training and how they used that training to design their classrooms to enhance early literacy. Two primary research questions guided this study: 1. To what extent do prekindergarten teachers design their classrooms to enhance early literacy? 2. On what do prekindergarten teachers base their decisions when designing their classrooms to support early literacy? The design of the prekindergarten classroom is critical because prekindergarten programs have a center-based focus. Consequently, how the centers are arranged and how books are used in each center is important to the classroom learning environment to enhance early literacy.

Descriptive Statistics

The results of this study were analyzed using descriptive analyses based on the observation results from the Literacy Environment Checklist (LEC) of the Early Literacy and Language Classroom Observation (ELLCO). Each category of the LEC was compared across the ten classrooms.

The results were defined using quantitative descriptive measures of 24 items in five categories: Book Area, Book Selection, Book Use, Writing Materials, and Writing around the Room. The data were organized into Design Measurement (Book Area and Book Selection) and Use Measurement (Book Use, Writing Materials, and Writing Around the Room). In addition, teacher interviews were conducted upon completion of the observations.

Design Measurement

Teachers scored the highest possible score on the Book Area and the Book Selection categories. Presumably, the teachers accomplished the appropriate classroom design because they had Early Childhood Environment Rating Scale (ECERS) training. ECERS is a tool that is mandated by the Louisiana Department of Education to guide the creation of centers in preschool classrooms. One of the mandatory centers in ECERS is the reading center, or book area.

Warash, Ward, and Rotilie (2008) found that teachers who attended ECERS training made the greatest change in their space and furnishings. Thus, the use of ECERS as a guide to designing a prekindergarten classroom seems to positively impact the reading center.

Use Measurement

Classrooms scored the lowest proficiency at 58% in the *Book Use* category. Although the teachers had all the necessary components in the Book Area, they did not capitalize on the use of books by having them in other centers to help children relate books to other aspects of the classroom and life. The ECERS tool does not recommend that books be placed in centers other than the Book Area because it does not focus specifically on early literacy. Also, ECERS was developed in 1990 and revised in 1998. The movement to include literacy within the curriculum of early childhood classrooms has escalated in the past five years. Although a majority of the teachers (80%) had more than nine years of teaching experience and stated that they had early literacy training that was embedded in other training, e.g. Creative Curriculum, this embedded training was not enough for the teachers to design early literacy proficient classrooms. It seems that without specific early literacy training such as Teach for America or the use of an early literacy curriculum (OWL), the teachers do not understand the value of books in other centers to

help children develop reading and writing skills (Gettinger & Stoiber, 2007; Justice, 2004; Morrow, 1991; Roskos & Newman, 2002).

Within the *Book Use* category, five (50%) of the classrooms had a place for children to listen to recorded books. Table 4.5 organizes the scores in relationship to the type of training. Teachers may believe that a listening center is a distraction from other centers and activities so they do not have one in the classroom (Skouge, Rao & Boisvert, 2007).

Classrooms scored the highest proficiency (86%) in *Writing Materials* which would indicate that the majority of the teachers understood and valued the need for children to write. All the teachers had a variety of writing tools around the classroom. Many studies (Morrow, 1991; Neuman & Roskos, 2002) have found that, with training, teachers varied writing materials available for the children.

Within the *Writing Materials* category, 90% of the classrooms had a functional writing center. Writing activities for the children were encouraged, such as writing in journals, creating own books, writing own sentences, circling the letter, and drawing pictures and writing about them.

However, within the *Writing Materials* category, only 50% of the classrooms had word cards displayed around the classroom. See Table 4.4 for details. In the ELLCO, word cards are described as cards with familiar words, such as the days of the month or week or vocabulary words, posted on the wall (but does not include labels on objects) next to or above the writing area (Smith, Dickinson, Sangeorge, Anastasopoulous, 2002). They are used to support children's writing. Several studies (Gettinger & Stoiber, 2007; Justice, 2004) found that teachers who were trained to use print referencing materials, such as word cards, increase the number of word cards and other print materials in the room. As seen in Table 4.4, some of the teachers who

had the word cards had early literacy training and used an early literacy curriculum, and some did not have the training or use an early literacy curriculum.

The classrooms had a proficiency score of 73% in the *Writing Around the Room* category. Ninety percent of the classrooms had charts and big books that were used for large group activities. Because almost all prekindergarten teachers utilize large group activities, such as circle time, as part of their daily schedule, it is not surprising that materials to support large group activities were found in most of the classrooms. Also, the specific early literacy training that teachers received may have influenced their decisions.

Eighty percent of the classrooms did not have writing materials in the dramatic play and block centers. Perhaps the teachers viewed these centers as “active” versus “passive” or academic centers and did not recognize the importance of writing materials in high-energy centers.

Two classrooms in this study had unique dramatic play centers that included early literacy materials: a doctor’s office (classroom 9) and a campsite (classroom 6). Both centers had authentic props. The doctor’s office had telephone and message pads, a prescription pad, stethoscope, bandages, and books to read in the “waiting room.” The camp site had a pup tent, binoculars, books on camping and a stool for the campsite. Both of these teachers had training in specific early literacy training (teacher 6 - Teach for America) or used an early literacy curriculum (teacher 9 - OWL). More specifically, teacher 9 is part of an Early Reading First study which incorporates the OWL, the ELLCO, and the Classroom Assessment Scoring System (CLASS), a coach and an interventionist. Consequently, the high score that her classroom received on the ELLCO made sense and was expected.

Although most of the teachers did not receive specific early literacy training, they stated they received some early literacy training indirectly or embedded in other training. This information may explain why 60% of the classrooms scored in the middle range of 31-36 on the LEC. Even some, rather than specific, early literacy training seems to improve classroom design to enhance early literacy. However, some early literacy training appears not to be enough to raise the LEC proficiency scores to the highest levels. Specific early literacy training or an early literacy curriculum seems to be needed. The research clearly indicates the importance of teacher training and continued professional development as well as literacy coaching to enhance early literacy (Casbergue, McGee, & Bedford, 2007; Gettinger & Stoiber, 2007; Morrow, 1991; Morrow & Rand, 1991; Neuman & Roskos, 1990).

Limitations of the Current Study

There are limitations with the current study. The results of this study are from a small sample of classrooms. Similar research with more classrooms could assist in the confirmation and the expansion of the current findings. This study observed the classroom environment without the children present. Additionally, the observations could have been conducted using the full ELLCO instrument, which includes observing how the teachers interact with children during play. The latest version of the ELLCO, which does not contain the LEC, could be used. Observation of the classroom environment with children present would be beneficial to understand how the teachers interact with the children, how the children engage with the materials, and how the teachers promote the use of literacy materials.

Implications

Successful public education is an elusive principle. For generations, public education has been evaluated and transformed trying to find the correct mix of teaching and learning. No

precise answer has arisen. This study holds no exact answers either. However, several implications are noted. First, only one classroom had an almost perfect LEC score. Since early literacy is a relatively new focus in early childhood, preservice training of teachers should include university courses in early literacy. Second, teachers should be introduced to the ELLCO to learn about designing and incorporating early literacy into their curricula. Third, training should be specific to early literacy. Embedded early literacy in other training models seems to be incomplete. Furthermore, regular professional development sessions should include early literacy to keep the training current.

Recommendations for Future research

Future studies should include a larger number of classrooms. It may be noteworthy to determine if teacher interaction with the children differs among public, charter, private and parochial schools. Since this study was conducted in an urban setting, a comparison of urban versus rural settings could be conducted to look for differences. A study investigating racial and linguistic diversity of teachers may uncover differences.

Since this study was conducted, the ELLCO was revised. The LEC was eliminated and three-hour observations are required to complete the evaluation. Thus, more studies need to be conducted with the revised ELLCO. Finally, more research on the benefits of different types of training is needed.

Summary

The focus of this study was to determine to what extent prekindergarten teachers designed their classrooms to enhance early literacy and on what the prekindergarten teachers based their decisions when designing their classrooms to support early literacy. Conclusively, the teachers designed their classrooms to enhance early literacy. All classrooms had all the

components for the Book Area and Book Selection categories. Although the teachers designed their classrooms appropriately, they did not utilize early literacy materials and books, and in many cases, did not have necessary early literacy materials in the classrooms. This study indicates that minimal teacher training in early literacy is not sufficient to impact decisions made by teachers in the classroom. While progress has been made in incorporating early literacy in prekindergarten classrooms, additional teacher support is needed to ensure that all children have opportunities to reach their maximum potential.

References

- Abbott, M., Walton, C., & Greenwood, C. R. (2002). Phonemic awareness in kindergarten and first grade. *Council for Exceptional Children, 34*, 20-26.
- Allor, J. H., Gansle, K. A., & Denny, R. K. (2006). The stop and go phonemic awareness game: Providing modeling, practice and feedback. *Preventing School Failure, 50*, 23-30.
- Ball, C. & Gettinger, M. (2009). Monitoring children's growth in early literacy skills: Effects of feedback on performance and classroom environments. *Education & Treatment of Children, 32*, 189-212.
- Bickford-Smith, A., Wijayatilake, L., & Woods, G. (2005). Evaluating the effectiveness of an early language intervention. *Educational Psychology in Practice, 21*, 161-173.
- Bergert, S. (2000). The warning signs of learning disabilities. Retrieved March 26, 2004, from <http://seg802.ocs.lsu.edu:2053/DeliveryPrintSave.asp?tb=1&ug=dbs+eric+sid+670DAA5E>.
- Bursuck, W. D., Munk, D. D., Nelson, C. & Curran, M. (2002). Research on the prevention of reading problems: Are kindergarten and first grade teachers listening? *Preventing School Failure, 47*, 4-9.
- Casbergue, R. M., McGee, L., & Bedford, A. W. (2007). Characteristics of classroom environments associated with accelerated literacy development. In L. Justice and C. Vukelich (Eds). *Creating preschool centers of excellence in language and literacy*. New York: Guilford Press.
- Clark, P. & Kragler, S. (2005). The impact of including writing materials in early childhood classrooms on the early literacy development of children from low-income families. *Early Child Development and Care, 175*, 285-301.

- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.
- Christie, J.F. & Enz, B. (1992). The effects of literacy play interventions on preschoolers play patterns and literacy development. *Early Education and Development, 3*, 205-219.
- Dickinson, D.K. & Tabors, P.O. (2001). *Beginning literacy with language: Young children learning at home and school*. Baltimore: Paul H. Brookes Publishing Co. In M.W. Smith & D.K. Dickinson, (2006). User Guide to Early Language and Literacy Classroom Observation Toolkit.
- Feitelson, D. & Goldstein, Z. (1986). Patterns of book ownership and reading to young children in Israeli school-oriented and nonschool-oriented families. *Reading Teacher, 39*, 924-930.
- Foorman, B. R. & Moats, L. C. (2004). Conditions for sustaining research-based practices in early reading instruction. *Remedial and Special Education, 25*, 51-60.
- Fratt, L. (2005). Building blocks. District Profile: Seattle Public Schools. Retrieved September, 2010 from www.DistrictAdministration.com.
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2004). Identifying reading disabilities by responsiveness-to-intervention: Specifying measures and criteria. *Learning Disability Quarterly, 27*, 216-227.
- Fuchs, D., Fuchs, L. S., Mock, D., Morgan, P. L., & Young, C.L. (2003). Responsiveness-to-intervention definitions, evidence and implication for the learning disabilities

- construct. *Learning Disabilities Research & Practice*, 18, 157-171.
- Fuchs, D., Fuchs, L. S., Thompson, A., Al Otaiba, S., Yen, L., Yang, N. J., Braun, M., & O'Connor, R. E. (2002). Exploring the importance of reading problems for kindergarteners with disabilities in mainstream classrooms. *Exceptional Children*, 68, 295-310.
- Gallagher, A., Frith, U., & Snowling, M. J. (2000). Precursors of literacy delay among children at genetic risk of dyslexia. *Journal of Child Psychology & Psychiatry*, 41, 203-213.
- Gettinger, M. & Stoiber, K. (2007). Applying a response-to-intervention model for early literacy development in low-income children. *Topics in Early Childhood*, 27, 198-213.
- Grace, C., Bordelon, D., Cooper, P., Kazelski, Reeves, & Thames. (2008). Impact of professional development on the literacy environment of preschool classrooms. *Journal of Research in Childhood Education*, 23, 52-62.
- Hannon, P. (1995). Literacy, home and school: Research and practice in teaching literacy with parents. London: The Falmer Press. In M.W. Smith & D.K. Dickinson, (2006). User Guide to Early Language and Literacy Classroom Observation Toolkit.
- Harms, T., Clifford, R. M., Cryer, D. (1998). Early childhood environment rating scale. New York: Teachers College.
- Heath, S.B. (1983). *Ways with words: Language, life and work in communities and classrooms*. New York: Cambridge University Press. In M.W. Smith & D.K. Dickinson, (2006). User Guide to Early Language and Literacy Classroom Observation Toolkit.
- Juel, C. (2006). The impact of early school experiences on initial reading. In D.K. Dickinson & S.B. Neuman (Eds.). *Handbook of early literacy research: Volume 2*. New York: Guildford Press.

- Justice, L. M. (2004). Creating language-rich preschool classroom environments. *Teaching Exceptional Children, 37*, 36-44.
- Kirkland, L. D., & Patterson, J. (2005). Developing oral language I primary classrooms. *Early Childhood Education Journal, 32*, 392-395.
- Kozulin, A. (1934/1986). *Vygotsky's Psychology: A Biography of Ideas*. Boston: First Harvard Press.
- LDOOnline. Early warning signs of learning disabilities. Retrieved February 2, 2003, from http://www.ldonline.org/ld_indepth/general_info/ccld_early_earning.html.
- Lerner, J. W. (2003). *Learning disabilities: Theories, diagnosis, and teaching strategies*. Boston: Houghton Mifflin.
- Lyon, G. R., Fletcher, J. M., Shaywitz, S. E., Shaywitz, B. A., Torgesen, J. K., Wood, F. B., Shulte, A., & Olson, R. (nd). Early warning system. In *Rethinking Learning Disabilities*. Retrieved May 6, 2005, from *Education Next* at <http://www.educationnext.org/20012/22.html>.
- Lyon, G. R., Fletcher, J. M., Torgesen, J.K., Shaywitz, S. E., & Chhabra, V. (2004). Continuing the discussion: Preventing and remediating reading failure: A response to Allington. *Educational Leadership, 61*, 86-88.
- Mason, J. & Au, K. (1990). *Reading instruction for today*. (2nd ed.). New York: Harper. In M.W. Smith & D.K. Dickinson, (2006). *User Guide to Early Language and Literacy Classroom Observation Toolkit*.
- McCormick, C.E. & Mason, J.M. (1986). Intervention procedures for increasing preschool children's interest in and knowledge about reading. In W.H. Teale & E. Sulzby (Eds.), *Emergent literacy: Writing and reading* (pp. 90-115). Norwood, NJ: Ablex.

- McCutchen, D., Abbott, R. D., Green, L. B., Beretvas, S. N., Cox, S., Potter, N. S., Quiroga, T, & Gray, A. L. (2002). Beginning literacy: Links among teacher knowledge, teacher practice, and student learning. *Journal of Learning Disabilities, 35*, 69-86.
- Moats, L. C. (2004). Relevance of neuroscience to effective education for students with and other disabilities. *Journal of Child Neurology, 53*, 23-45.
- Moats, L. C. & Foorman, B. R. (2003). Measuring teachers' content knowledge of language and reading. *Annals of Dyslexia, 53*, 23-45.
- Morrow, L. M., Barnhart, S., & Rooyakkers, D. (2002). Integrating technology with the teaching of an early literacy course. *The Reading Teacher, 56*, 218-230.
- Morrow, L. M. & Rand, M. K. (1991). Promoting literacy during play by designing early childhood classroom environments. *The Reading Teacher, 44*, 396-402.
- National Early Literacy Panel. (2008). Developing early literacy: Report of the National Early Literacy Panel. Washington, D.C.: National Institute for Literacy. Available at <http://www.nifl.gov/earlychildhood/NELP/NELPreprt.html>.
- National Research Council. (1998). Preventing reading difficulties in young children. Washington, D.C.: National Academy Press.
- Neuman, S. B. (2003). Choose the right books for your child. *Scholastic Parent & Child*, November/December, 29-30.
- Neuman, S. B. (2004). Hear, Hear! *Scholastic Parent & Child*, February/March, 22.
- Neuman, S. B. (2004). The effect of print-rich classroom environments on early literacy growth. *Distinguished Educator, 58*, 89-91.
- Neuman, S. B. (2006). When reading clicks. *Scholastic Parent & Child*, May, 43-45.
- Neuman, S.B. & Dickinson, D.K. (2003). Introduction. In S.B. Neuman & D.K. Dickinson

- (Eds.). *Handbook of early literacy research*. New York: the Guilford Press.
- New, R.S. (2001). Early literacy and developmentally appropriate practice: Rethinking the paradigm. In S.B. Neuman & D.K. Dickinson (Eds.). *Handbook of early literacy research, 1*. 245-262
- Onwuegbuzie, A. J. & Johnson, R. B. (2006). The validity issue in mixed research. *Research in the Schools, 13*, 48-63.
- Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2001). How psychological science informs the teaching of reading. *Psychological science in the Public Interest, 2*, 31-61.
- Roskos, K., Christie, J.F., & Richgels, D.J. (2003). The essentials of early literacy instruction. *Young Children, 58*, 52-60.
- Roskos, K. & Neuman, S. B. (2002). Environment and its influence for early literacy teaching and learning. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 281-294). New York: The Guilford Press.
- Shaywitz, S. E., & Shaywitz, B. A. (2004). Reading disability and the brain. *Educational Leadership, 61*, 6-11.
- Sheridan, S. (1995). Application of quality ratings in pre-schools in community development work: The Lerum competence development project. Paper presented at the European Conference on the quality of Early Childhood Education (5th, Paris, France, September 7-9, 1995). (ERIC Document Reproduction Services No. ED 392527).
- Skouge, J.R, Rao, K., & Boisver, P.C. (2007). Promoting early literacy for diverse learners using audio and video technology. *Early Childhood Education Journal, 35*, 5-11.
- Smith, J. A. (2000). Teaching reading. *The Reading Teacher, 53*, 646-649.

- Smith, M. W. & Dickinson, D. K. (2002). *Early language and literacy classroom observation (ELLCO) toolkit, research edition user's guide*. 1-88.
- Smith, M. W., Dickinson, D. K., Sangeorge, A., & Anastasopoulos, L. (2002). *Early language & literacy classroom observation*. Newton, MA: Brookes Publishing.
- Snow, C.E., Burns, M.S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. In M.W. Smith & D.K. Dickinson, (2006). *User Guide to Early Language and Literacy Classroom Observation Toolkit*. Washington DC: National Academy Press.
- Snow, C. E., Burns, M. S., and Griffin, P. (1999). Language and literacy environments in preschools. Retrieved from Eric Digest <http://www.ericdigests.org/1999-3/preschools.htm> on October 24, 2006.
- Strickland, D.S. & Morrow, L.M. (Eds.). (1989). *Emerging literacy: Young children learn to read and write*. Newark, DE: International Reading Association. In Smith & Dickinson, (2006). *User Guide to Early Language and Literacy Classroom Observation Toolkit*.
- Sulzby, E. & Teale, W. (1991). Emergent literacy. In R, Barr, M. Kamil, P. Mosenthal, & P. Pearson (Eds.), *Handbook of reading research, 2*, 727-757. New York: Longman.
- Suter, W. N. (2006). *Introduction to educational research: A critical thinking approach*. Thousand Oaks, CA: Sage Publications.
- Thomas, R. M. (2003). *Blending qualitative and quantitative research methods in theses and dissertations*. Thousand Oaks, CA: Corwin Press, Inc.
- Thoreson, A. C. (2001). Adjustments of group differences for social context in NAEP. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Venn, E. C. & Jahn, M. D. (2003). *Teaching and learning in preschool: Using individually*

appropriate practices in early childhood literacy instruction. Newark, DE: International Reading Association.

Vukelich, C. & Christie, J. (2004). *Building a foundation for preschool literacy*. Newark, NJ: International Reading Association.

Warash, B. G., Markstrom, C. A., & Lucci, B. (2005). The early childhood environmental rating scale-revised as a tool to improve child care centers. *Education, 126*, 240-250.

APPENDICES



APPENDICES

Appendix 3.1

From: Candace Deann Thorn (cthorn@uno.edu)
To: Linda Flynn-Wilson; jdlorusso06@yahoo.com
Date: Monday, March 3, 2008 9:44:41 AM
Subject: IRB# 03Sep07 Approval Letter

**University Committee for the Protection
of Human Subjects in Research
University of New Orleans**

Campus Correspondence

Principal Investigator:

Co-Investigator:

Date:

IRB#:

Linda L. Flynn

Jo Ann D. LoRusso

March 3, 2008

Protocol Title: "Do kindergarten
teachers design their classrooms to enhance early
literacy?"
03SEP07

I have reviewed your application for conducting research involving human subjects. request for a renewal. Your application was approved following an expedited review under 45CFR 46.110(1) categories 6 & 7. Approval is contingent on receiving letters of support from each school prior to your interactions with potential participants. Please provide copies of the letters to the IRB office as they are received.

Please remember that approval is only valid for one year from the approval date. Any changes to the procedures or protocols must be reviewed and approved by the IRB prior to implementation. Use the IRB number listed on this letter in all future correspondence regarding this proposal.

If an adverse, unforeseen event occurs (e.g., physical, social, or emotional harm), you are required to inform the IRB as soon as possible after the event.

Best of luck with your project!

Sincerely,

<http://us.mgl.mail.yahoo.com/dc/launch?.gx=1&.rand=89palo6lojb6>

Robert D. Laird, Ph.D., Chair

Committee for the Protection of Human Subjects in Research

<http://us.mgl.mail.yahoo.com/dc/blank.html?bn=272.7&.intl=us&.lang=en-US>

Jo Ann,

After review of the 03Sep07 "Do prekindergarten teachers design their classrooms to enhance early literacy?" approval for continuation was granted until 03/03/09. If you have any questions please let me know.

Jessica Grande

IRB Coordinator

unoirb@uno.edu

E L L C O Toolkit Score Form

Teacher: _____

Observer: _____

Literacy Environment Checklist

Score

Book Area

Book Selection

Book Use

Writing Materials

Writing Around the Room

Total

Classroom Observation

Circle one score and write score in box at right (for totaling).

General Classroom Environment

Score

- | | | | | | | | |
|----|---|---|---|---|---|---|--|
| 1. | Organization of the Classroom | 5 | 4 | 3 | 2 | 1 | |
| 2. | Contents of the Classroom | 5 | 4 | 3 | 2 | 1 | |
| 3. | Presence and Use of Technology* | 5 | 4 | 3 | 2 | 1 | |
| 4. | Opportunities for Child Choice and Initiative | 5 | 4 | 3 | 2 | 1 | |
| 5. | Classroom Management Strategies | 5 | 4 | 3 | 2 | 1 | |
| 6. | Classroom Climate | 5 | 4 | 3 | 2 | 1 | |

Subtotal

Language, Literacy, and Curriculum

Score

- | | | | | | | | |
|----|----------------------------|---|---|---|---|---|--|
| 7. | Oral Language Facilitation | 5 | 4 | 3 | 2 | 1 | |
| 8. | Presence of Books | 5 | 4 | 3 | 2 | 1 | |

* On the basis of psychometric analysis, it is recommended that this item be omitted from the General Classroom Environment Subtotal and used only as part of the Classroom Observation total.

Appendix 3.10

Demographic Form

Name: _____

School: _____

Age: 21 - 30 31 - 40 41 - 50 51 - 60 Over 60

Race: Caucasian African American Asian Hispanic Multiracial Other

Highest level of education achieved:

Bachelor's degree Master's degree Doctorate

Major: _____

Certification? Yes No Certified in: _____

State and university in which you got your degree or certification:

Length of time teaching early childhood: 2 - 4 years 5 - 9 years more than 9 years

Number of students in your current class: _____

Have you had any training in classroom design? Yes No

If so, what training? _____

Have you had any training in early literacy? Yes No

If so, what training? _____

Appendix 3.11

Interview Summary Form with Coded Themes

Contact Summary:

Type of School RSD

School Name: School # 5

Teacher:

Date of Interview: October 12, 2008

Date Coded: April 13, 2009

PAGE	SALIENT POINTS	THEME
1	IQ 1: in-service training through Orleans parish, RSD, in college ECERS	elt cdt
1	IQ 2: small groups. It's also used for center time in whole group instruction, theme based, I give them to them and they can look at them and play with them.	ura
1	IQ 3: I read stories to the students. I read it in a large group, sometimes I read it in story time. When they're in centers, we read it one-on-one basically and they can try to retell a story to us. We do heads that can retell a story to us. We like to do activities that extend whatever they're learning in a group, sometimes cooking activities, we might do that. Or other kind of activities – . So we do different things to encourage them	ubc
1	IQ 4: Reading time we do a large group, small group time where they do a reading kind of activity. And we also have center time where they are free to choose. large group story time. We have small group reading activities. We have . And we have a program called	pirt gs
2	IQ 5: with the people in the school so the children get familiar with the names of all the different people in the school. We've used it for them to go on the Internet and go on some Web sites like PBS or StarFall that promote alphabet recognition and different games, educational games during center time don't have much software encourage components of it, but I think they need some interactions, not artificial interactions like computers provide. some components like alphabet recognition or some things it does help. But overall for enjoyment of literature, I don't think it does.	tu tt cp cpel
3	IQ 6: no literacy materials in dramatic play	lmic
3	IQ 7: about once a quarter a grocery store, a fire station, an different things like that, a little village we had. expand to go across the curriculum	cdpa wcdp
4	IQ 8: go to block center they can draw the building they're building, they can write the names of the signs or whatever it is. When they go to sign center, I encourage them to write	wo

elt = early literacy training cdt = classroom design training ucd = use of classroom design training ura = use of reading area ubc = use of books in classroom gs = group size for reading ecub = encourage children to use books tu = technology use cp = computer programs	tt = technology time cpel = computer programs encourage literacy pirt = plan, implement reading time wcura = when children use reading area crteo = children read to each other cdpa = change dramatic play area lmic – literacy materials in center cdpa = change dramatic play area wcdp = why chose dramatic play areas wo = writing opportunities
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Appendix 3.12

Code	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
et	Creative curriculum, ECERS, Prof'l deupt	No	LETTERS, Sing-Spell-Read-Write	Teach Amer, Elem lit training	Creative curriculum	Creative curriculum	Project Read, Writing to Read	Success for All, Harcourt trophies	OWL	Project Read, SFA, Direct Instruction, Open Court
cdt	Creative curriculum, ECERS, Prof'l deupt	Engineering the environ	Creative curriculum, ECERS	ECERS	ECERS		ECERS		ECERS	ECERS, Creative curriculum
ucd	Center time Choose	Center time Choose	Center time Choose	Center time Choose	Center time Choose	Center time Choose	Center time Choose, Reading loft	Center time Choose	Center time Choose	Center time Choose
rtloc	yes	yes			yes		yes	yes	yes	
mtortc	Flannel board, Magnetic board, puppets	puppets	puppets		Puppets					
ura	Whole group, Theme-based				Large group, Small group			Small group		Whole group
ubc		Children choose books, Teacher asks ?'s	Theme-based books, Children choose books	Theme-based books, Children choose books	Theme-based books	Theme-based books, Story time	Theme-based books, Anything you want to know have a book for it	Theme-based books, Anything you want to know have a book for it		Read story every day, Dissecting books-drawing pics With meaning and why

Appendix 3.12

prt	Whole group, Individually to calm	Center time, Circle time, Library time	Whole group, Individually, Small group, Same book for each child, Reading while waiting for everyone to arrive, If finished with assignment, get book go to rug Learn new letter on Mon	Whole group, Sing, Discuss activities	Large group, Small group, Buddies from Tulane, Prime Time Reading	Large group, Small group, Pairs share books, Bring books from home	Small group, Individually, Math and story	Small group, Accommodate child's needs, Individually	Whole group, Individually, Small group, Read-alouds with OWL	Story 2x a day, Plan stories according to theme, eg Black History
cp	Hooked on Phonics, assign comp time, not many prog - RSD	PBSKids Not assign, not many prog - RSD	Bailey's Book House, Sammy's Sci, Millie's Math, not many prog - RSD sch comp lab	PBSKids, EricCarle.com	PowerPoint presentation PBSKids, Star Fall, not many prog - RSD	No internet Reader Rabbit, Callio, Hooked on Phonics	Early reading theory, Star Fall, PBS Kids	PBS Kids, Star Fall, Soft Sch Kids Zone	Just got computer Laptop with Smart Board, Elmo	Star Fall, Hooked on Phonics
wcura	Center time	Center time	Center time	Center time	Center time	Center time	Center time	Center time	Center time	Center time, Read story every day, Center time, When finished with other activities

Appendix 3.12

lmidp	Not visible but told usually exists	Not visible but told usually exists, Scribble and write stories	Books	Not visible but told usually exists	none	None	none	books	Dr's office books	Books relate to center Eg cook books Grocery lists, Books about community helpers
cdpa	2 themes always, grocery, hair/barber, related to themes: sea, African costumes, Black history, Jazz Fest,	No changes Home only Dress up: community wkrs,	2 themes per month, animals-vet kit, food-apron, chef's hat, cash register	Dr's office, Taxi, Pirate ship, Diner, camping	Change once per quarter, Grocery, fire station, little village	Home center always, Grocery pet store, McDonald's	Housekeeping, Changes with theme: Henry Penny, construction	Three times a year, Military uniforms cheerleaders, telephone man, police man, majorette	Weekly Reader themes: Flower shop, art museum, Mardi Gras World, dr's office	Change seasonally, Flower shop, Mardi Gras, soup for Thanksgiving, Christmas, spring
wo	Stencils, Help children Journals Write about field trips and holiday – Christmas, MLK, Mardi Gras, Easter	Variety of pencils & pens – fancy Fat pencils	Formal writing time, Paper available, Small group writing about story	Writing center, ABC center, write what going to build Paint letters, Draw and write out before build, Write-around-the-room center: paper on clipboard & walk around room and write what they see	Draw before building, Sign center – make signs	Variety of writing tools, Sign in sheet Create own book, Draw pic & dictate to teacher	Computer printout sheets, Connect the dots, Write own sentences sight words	Journal, Draw pics & write about them	Circle the letter, Take a phone message in home center, Later read message to class, classmate moved so wrote notes to him	Center time, Writing books-practice

Internal Homogeneity – Sameness

- elt = early literacy training
- cdt = classroom design training
- ucd = use of classroom design training
- rtoc = read individually to children
- mitrc = use of materials to read to children
- ura = use of reading area
- ubc = use of books in classroom
- ccb = children choose books

Appendix 3.13 External -differences – by color

School Type	Specifically promotes literacy, unique	Not frequently found but should be in classroom	Books in each center	Books go home	Interesting dramatic play areas	Encourages reading and writing	Not observed, but teacher said usually there	Not free choice	Dictated by ECERS
RSD	<p>Baskets of books around room used to bid time till everyone arrives</p> <p>Books & corresponding manipulatives or characters</p> <p>beginning of school, same book per child, read together, discuss book, draw pictures about book, or do craft, take book home, create library at home</p> <p>As year goes on, child chooses book of interest, take home</p> <p>If time runs out and can't finish reading book, take it home</p> <p>When finished activity ahead of class, get book out of basket and sit on rug t read. Teacher's read to</p>	<p>Listening center</p> <p>No literacy materials in dramatic play</p>	(2 schools)	(1 school)		<p>Letter book each week, write letter, find words around room that begins with letter</p> <p>Write/make letters with yarn and other materials</p>	<p>Not observed, but teacher said usually literacy materials in all centers - transition move to different location</p> <p>Paper and pencil in a brief case in housekeeping</p>	Assign children for computer time	Time very dictated by ECERS (only #2)

children, sit on lap, draws interest of other children & finish task to join reading									
Children bring books from home to be read in class									
Use puppets to retell story									
Bring in show-and-tell from home about story									
Class reads together with assistance									
Discuss and draw pics about story									
Do a craft about the book									
Do a letter per week with books									
with little stories about each letter									
Find words around classroom that go with the letter of the week									
Draw pics of the story									
Use Sing, Spell,									

<p>Read, Write (alphabet chant) to learn sounds of letters</p> <p>Reading buddies with the Tulane University, they come in and read with individual students.</p> <p>Prime Time Reading where the parents can come in</p> <p>Bailey's Book House</p> <p>Sammy's Science</p> <p>Millie's Math</p> <p>Reader Rabbit</p> <p>Caillou</p> <p>PowerPoint presentations with people in school</p> <p>Teach concepts, i.e. over/under, matching, same/different, matching, word- building, language-rich activities</p> <p>Books about food, household- type family stories</p> <p>Box of multicultural books</p>	
---	--

	<p>Formal writing time that goes with the letter of the week; teachers writes stories related by children, learning/writing beginning, middle, end of story, students draw story & teachers write it -- displayed in classroom</p> <p>Writing/drawing materials in block center to draw what is to be built</p> <p>Sign center</p>			<p>Books home on Mondays; Friday children talk about their favorite part of the story</p> <p>Send home parent/child magazines so parents can also work with child</p>	<p>Privacy area - collapsible tent</p> <p>Loft reading area</p> <p>Prescriptions template in dr's office to check boxes, write diagnosis; made menu with photos & write customer's order</p>	<p>Sharing information and reminding children we have a book about that</p> <p>Journals -- every day write "Today is Tuesday. Tomorrow is ...;" themes draw picture & tell about what is drawn</p>	<p>Prescriptions template in dr's office to check boxes, write diagnosis; made menu with photos & write customer's order</p>		<p>Said too many books in the classroom</p>
<p>Charter</p>	<p>Whichever subject, there are books in the room to relate to it</p> <p>If child cannot read, then look at pictures to see if you can find what you are looking for</p> <p>Seeing teacher reading newspaper and magazines</p> <p>Whole group sing a song, discuss</p>	<p>(2 schools)</p>							

	<p>the story, do a project based on the story</p> <p>Incorporate Hooked on Phonics</p> <p>Pay attention to children's needs, i.e. if child is auditory learner then use head sets to hear sounds clearly</p> <p>Allow children to stack books – some go to the library, some go into crates in the classroom. They are part of the process</p> <p>Read stories multiple times aloud and discuss pertinent information & the inference. Children know the story by the third round</p> <p>EricCarle.com (watch the video and then replicate the activity in class)</p> <p>Soft School</p> <p>Kid's Zone</p>				<p>taxi, pirate ship, diner, camping</p> <p>Tell-me-a-tale-Dramatic play center and housekeeping – intertwined – ex. 3 Bears – in blocks construction of houses, different chairs, different beds; Henny Penny create things in the story</p> <p>Weekly reader themes – flower shop with buy/sell flowers, make price tickets, incorporate all jobs related to flower shop; based on book : <i>Matthew's Dreams</i> - Ogden Museum - block center built the museum, art center created new</p>	<p>Read Special stories for events happening in children's lives, e.g. new baby, need to be kinder</p>			
--	--	--	--	--	--	--	--	--	--

	<p>Teach concepts, i.e. over/under, same/different, matching, word-building, language-rich activities</p> <p>Books about how to be a doctor, a president, what is a president, what is about music, transportation</p> <p>Children help create the doctor's office center: books, prescription pads, sign in sheet</p> <p>Bring writing into everything, i.e. build words in ABC center then write them down, paint big letters to develop gross motor skills; in blocks, draw and write what is to be built; dramatic play; teacher center is most popular center – get to do what teacher does, i.e. write sight words on board, use magnets; write-around-the-room center (regular</p>
	<p>art for display, writing signs, buy books in museum store: Mardi Gras World</p>

	<p>center), i.e. clipboards & walk around room and write what they see</p> <p>Circle letters of the day & write it; dramatic play -write a message from phone call, then they bring their message to the rocking chair, in large group, students goes up and talks about what is written in the message; write notes to friends who moved</p>								
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RQ2: On what do prekindergarten teachers base their decisions when designing their classrooms to support early literacy?

Conceptually –Ordered #1

Theme: Training

Sub-theme	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	Teacher #6	Teacher #7	Teacher #8	Teacher #9	Teacher #10
Types of EL training	Creative Curriculum; profi devp		LETTERS; Sing, Spell, Read, Write; <i>Creative Curriculum</i>	Teach for America; elem literacy training	Creative Curriculum	Creative Curriculum	Project Read	Success for All Harcourt Trophies	OWL	Project Read; Direct Instruction; Open Court; <i>Creative Curriculum</i>
Types of CD Training	Creative Curriculum; ECERS; profi devp	Engineering the Environ	Creative Curriculum; ECERS	ECERS	ECERS; <i>Creative Curriculum</i>	<i>Creative Curriculum</i>	ECERS		ECERS	ECERS; <i>Creative Curriculum</i>

Key:

Italics = inferred by teacher

Conceptually –Ordered #2

Theme: Enhancing Literacy - Use *Curriculum Design*

	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	Teacher #6	Teacher #7	Teacher #8	Teacher #9	Teacher #10
Sub-theme	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	Teacher #6	Teacher #7	Teacher #8	Teacher #9	Teacher #10
Use of classroom design	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers	Free choice centers
Centers in all classrooms	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers	Reading & dramatic play centers
Literacy materials in dramatic play centers	Not visible but told usually exists	Not visible but told usually exists	Books;	Not visible but told usually exists				Books	Dr's office, write phone messages, read to class	Cook books; grocery lists; books @ community helpers
Materials to enhance reading	Flannel board; magnetic board; puppets;	Puppets	Puppets		Puppets					
Dramatic Play center themes	2 themes always: grocery, hair/barberT hemes: sea, African costumes, Black History, Jazz Fest	Home only; dress up: community workers	2 themes per month Animals-vet kit; food-apron, chef's hat, cash register	Dr's office, taxi, pirate ship, diner, camping	Change once per quarter; Grocery, fire station, little village	Home center always; Grocery, pet store, McDonald's	Home center changes with theme: Henny Penny, construction	Change 3 times per year: military uniforms, cheerleaders, telephone man, police man, majorettes	Weekly Reader themes: flower shop, art museum, Mardi Gras World, dr's office	Change seasonally: flower shop, Mardi Gras, soup for Thanksgiving, Christmas, spring

Conceptually –Ordered #3

Theme: Planning Reading

Sub-theme	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	Teacher #6	Teacher #7	Teacher #8	Teacher #9	Teacher #10
Group Reading	Whole group, individual		Whole group, individual, Small group	Whole group	Whole group, Small group	Whole group, Small group	Individual, Small group	Individual, Small group	Whole group, individual, Small group ✓	
Other		Center time, circle time, library time ✓	Small book for each child, reading while waiting in morning, when finished with work, bring books home ✓	Singing ✓	Reading buddies, Prime Time Reading	Pairs share books, bring books from home	Math & story	Accommodate child's needs	Read-alouds with OWL	Story 2x a day, stories by theme – Black History
Book Types			Theme-based books	Theme-based books	Theme-based books	Theme-based books	Theme-based books	Theme-based books		

Conceptually –Ordered #4

Theme: Writing Opportunities

Sub-theme	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	Teacher #6	Teacher #7	Teacher #8	Teacher #9	Teacher #10
Writing tools	Stencils	Variety of pencils & pens				Variety of pencils & pens				
Writing Center Activities	Journals , write @ field trips,		Formal writing times; small group write @ story	Write what going to build, Paint letters, paper & clipboard & walk around & write what you see	Draw before writing, make signs	Create own book, draw pic & dictate to teacher	Write own sentences	Journal, draw pics & write about them	Circle the letter,	Writing books, practice
Writing Themes										

Design Classrooms to Enhance Early Literacy

Appendix 3.15 External heterogeneity – differences
 Conceptually-ordered #1
 Theme – Enhancing Literacy

Sub-theme	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7	Teacher 8	Teacher 9	Teacher 10
Use of books	Send books home to create home library; Books in baskets @ room – read when waiting; learn new letters with small books;							
Computer programs	Bailey's Book House, Sammy's Science, Millie's Math	Hooked on Phonics, Reader Rabbit	Early Reading Theory	EricCarle.com		Hooked on Phonics, Reader Rabbit		Hooked on Phonics, Reader Rabbit
Literacy activities			Show & tell @ books	Find words with letter of week @ classroom; create scenes from books – <i>Chica Boom Boom</i> tree	Act out role of chara in Home center; create story setting in Block center; Reading loft	Send books home on Mon – tell book favs on Fri; bring books from home to read	Circle letter of the day and write it; take msgs & read to class; dr's office with class help	Draw pics @ books; have recipes in Home center & cook



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APPENDIX 3.16

January 18, 2007

Invoice/Tracking #: PB07011

Jo Ann LoRusso
67 Allard Blvd
New Orleans, LA 70119
FAX: 504-482-1586

Educational

Thank you for your request for permission to photocopy reprint adapt post online digitize translate distribute "Book Area" (questions 1-3 of Literacy Environment Checklist), "Writing Materials" (questions 13-18 of Literacy Environment Checklist), "Contents of the Classroom" (part 2 of Classroom Observation), and "Reading Instruction" (part 9S of Classroom Observation) from **Early Language & Literacy Classroom Observation (ELLCO) Toolkit, Research Edition** (2002) by Miriam W. Smith & David K. Dickinson, with Angela Sangeorge & Louisa Anastasopoulos.

This material will appear in a modified instrument for observing approximately 16 pre-kindergarten classes in Orleans Parish and St. Charles Parish schools. The instrument will also appear in your dissertation, "Do preschool teachers design their classrooms to enhance early literacy?" This research and dissertation are for your doctoral degree in special education/early intervention from the University of New Orleans.

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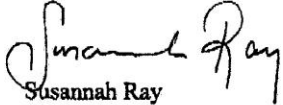
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Page 2 of 2

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UNO LETTERHEAD

December 12, 2007

Judy Romano, M.ED
Director of Early Childhood
Recovery School District
1641 Poland Avenue.
New Orleans, Louisiana 70117-4529

Dear Ms. Romano:

I would like to collect noninvasive data for my dissertation at five Recovery School District and five charter school prekindergarten classrooms during the fall 2007. My research is designed in the following:

- o I would like to observe five RSD and five RSD charter school prekindergarten classrooms using the Early Language and Literacy Classroom Observation (ELLCO) tool, after school when the children are not present, and
- o conduct a short interview with the teachers which should last about 20 minutes,
- o Upon completion of the observation, interview, tests, and teacher approval of the interview transcript, I will compensate the teachers with \$50.00 - if that is acceptable.
- o Inclusion criteria for teacher participation are:
 - o (1) teacher certification in early childhood or early intervention;
 - o (2) prekindergarten classroom teacher for at least two years and
 - o (3) current classroom contains at least ten prekindergarten children.

This study is based on Tier 1 of Response-To-Intervention (RTI) which addresses inadequate instruction for early literacy (Fuchs, Fuchs, & Compton, 2004). In RTI, if instruction is not deemed appropriate for students to learn, an intervention plan is implemented where training is provided for the teachers to develop a stronger instructional program. Before intervention can be provided at the classroom level, it is important to understand teachers' knowledge of early literacy. Thus, the purpose of this study is to investigate to what extent prekindergarten teachers design their classrooms to enhance early literacy and to what extent do teachers have training in and knowledge of classroom design that promotes early literacy.

Thank you for your consideration.

Sincerely,

Jo Ann LoRusso, M.A., A.B.D.
Doctoral Candidate
University of New Orleans

approved -

[Signature: J. Romano]
Director of EC

[Signature: Debbie Baker]
Director of EC

[Signature: ...]
Director of EC

RSD School Listings

School	Tel / Fax Lines	Principal	Assistant Principal
Banneker Elementary 421 Burdette St. New Orleans, LA 70118	Tel 504-373-6203 Fax 504-862-5194 PK-8	Cherylyn Branche Cell 504-913-4069 cherylyn.branche@rsdla.net	Sister Marie Noel Cell 504-232-6918 sister.noel@rsdla.net
Bauduit Elementary 3649 Laurel St. New Orleans, LA 70115	Tel 504-373-6224 Fax PK-8	Williette Wallace Cell 504-258-5696 williette.wallace@rsdla.net	Administrative Intern Henry Latten Cell 504-220-7922 henry.latten@rsdla.net
Booker T. Washington (Accelerated) 1201 S. Roman St. New Orleans, LA 70125	Temp 504-312-0695 Fax Transitional School	Kirk Haynes Cell 504-312-0695 kirk.haynes@rsdla.net	Mera Bercy Cell 504-312-0700 mera.bercy@rsdla.net
Carver Elementary (mods) 3059 Higgins Blvd. New Orleans, LA 70126	Tel 504-373-6225 Fax PK-8	Dedra Bailey Cell 504-312-0757 dedra.bailey@rsdla.net	Shelia Gray Cell 504-312-0747 shelia.gray@rsdla.net
Carver High (mods) 3059 Higgins Blvd. New Orleans, LA 70126	Tel 504-372-6226 Fax 9th-12th	Vanessa Eugene Cell 504-232-9592 vanessa.eugene@rsdla.net	Toyia Washington Cell 504-312-0717 toyia.washington@rsdla.net
Clark High 1301 N. Derbigny New Orleans, LA 70116	Temp 504-304-6228 Fax 504-827-4538 9th-12th	Novelt Estrella Cell 504-312-0746 novelt.estrella@rsdla.net	Assistant Principal 1. Eric Richard / Cell 913-6786 eric.richard@rsdla.net Interim Assistant Principal 2. Barry Rutherford / Cell 655-3696 barry.rutherford@rsdla.net
Coghill Elementary (mods) 5500 Piety St. New Orleans, LA	Tel 504-373-6237 Fax PK-8	Aisha Jones Cell 504-312-0764 aisha.jones@rsdla.net	Latasha Skidmore Cell 504-220-9887 latasha.skidmore@rsdla.net

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RSD School Listings

School	Tel / Fax Lines	Principal	Assistant Principal
Cohen High 3520 Dryades St. New Orleans, LA 70115	Tel 504-373-6204 Fax 504-896-4015 9th-12th	Arlene Kennedy Cell 504-301-6050 arlene.kennedy@rsdla.net	Alfred Jones Cell alfred.jones@rsdla.net
Craig Elementary 5316 Michoud Blvd. (eff. 11/26/07) New Orleans, LA 70129	Temp 504-592-8527 Fax 504-592-8303 PK-8	Wanda Anderson-Guillaume Cell 504-258-2921 wanda.anderson@rsdla.net	Sean Goodwin Cell 504-235-1663 sean.goodwin@rsdla.net
Dibert Elementary 4217 Orleans Ave. New Orleans, LA 70119	Tel 504-373-6205 Fax 504-488-4091 PK-8	Keith Bartlett Cell 504-258-2946 keith.bartlett@rsdla.net	Brian Toldson Cell 504-312-0737 brian.toldson@rsdla.net
Douglass High 3820 St. Claude Ave. New Orleans, LA 70117	Temp 504-942-2293 Fax 504-945-0969 9th-12th (no new 9th graders)	Wilfred Johnson Cell 504-235-4962 wilfred.johnson@rsdla.net	Harry Dixon Cell 504-655-6468 harry.dixon@rsdla.net
Drew Elementary 3819 St. Claude Ave. New Orleans, LA 70117	Tel 504-373-6208 Fax 504-941-5309 PK-8	Co-Principals: 1. Shawon Bernard / cell 250-3622 shawon.bernard@rsdla.net 2. Terri Wide / cell 330-8252 terri.wide@rsdla.net	N/A
Fannie C. Wilms. Elem. (mods) 11755 Dwyer New Orleans, LA	Tel 504-373-6228 Fax PK-6	Kelly Batiste Cell 504-218-9203 kelly.batiste@rsdla.net	Administrative Intern Monique Cook / cell 220-1766 monique.cook@rsdla.net
Gentilly Terrace Elementary 4720 Painters St. New Orleans, LA 70122	Temp. 504-312-0750 Fax 1st-8th	Jonathan Williams Cell 504-312-0756 jonathan.williams@uno.edu	Valerie Perez Cell 504-235-1992 valerie.perez@uno.edu

RSD School Listings

School	Tel / Fax Lines	Principal	Assistant Principal
Gregory Elementary (mods) 1700 Pratt Dr. New Orleans, LA 70122	Tel 504-373-6229 Fax 6th-8th	Troye Washington Cell 504-312-0768 troye.washington@rsdla.net	Administrative Intern Meredith Summerville / 312-0761 meredith.summerville@rsdla.net
Habans Elementary 3819 Herschel Dr. New Orleans, LA 70114	Temp 504-366-4590 Fax 504-366-3410 PK-8	Olga Johnson-Walters Cell 504-247-7946 olga.johnsonwalters@rsdla.net	Leslie Williams Cell 504-235-2450 leslie.williams@rsdla.net
Harney Elementary 2503 Willow St. New Orleans, LA	Temp. 504-891-6919 Fax PK-8	Eileen Williams Cell 504-312-0730 eileen.williams@rsdla.net	Marguerite Scott Cell 504-220-6385 marguerite.scott@rsdla.net
Henderson Elementary 1912 L.B. Landry Ave. New Orleans, LA 70114	Temp 504-361-8271 Fax 504-361-8273 PK-8	Beverly Johnson-Jelks Cell 504-258-1206 beverly.johnson@rsdla.net	Sharon Warren Cell 504-312-0734 sharon.warren@rsdla.net
John McDonogh High 2426 Esplanade Ave. New Orleans, LA 70119	Temp 504-827-9894 Fax 504-827-8603 9-12 (no new 9th graders)	Gerald DeBose Cell 504-312-0754 gerald.debose@rsdla.net	Co-Assistant Principals: 1. Alicia Carter-Watts / 250-7608 alicia.carterwatts@rsdla.net 2. Dawn Greay / 258-4307 dawn.greay@rsdla.net
Johnson Elementary 1800 Monroe St. New Orleans, LA 70118	Temp 504-861-7718 Fax 504-861-5943 PK-8	Wanda Brooks Cell 504-312-3388 wanda.brooks@rsdla.net	Kim Nance Cell 504-312-0742 kim.nance@rsdla.net
Laurel Elementary 820 Jackson Ave. New Orleans, LA 70130	Temp 504-529-4243 Fax 504-529-4951 PK-8	Janet Johnson Cell 504-312-0716 janet.johnson@rsdla.net	Jannice Stevenson Cell 504-232-2248 jannice.stevenson@rsdla.net
Live Oak Elementary 3128 Constance St. New Orleans, LA 70115	Temp 504-894-7068 Fax 504-894-8716 PK-8	Pamela Randall Cell 504-232-3124 pamela.randall@rsdla.net	Michael Howard Cell 504-312-0712 michael.howard@rsdla.net

RSD School Contact Information
Revised 01/09/2008 at 12:30 pm
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RSD School Listings

School	Tel / Fax Lines	Principal	Assistant Principal
Livingston High (mods) 7301 Dwyer Rd. New Orleans, LA	Tel 504-373-6232 Fax 7th-12th	JoAnn Ben Cell 504-312-0755 joann.ben@rsdla.net	Katrinia Horton Cell 504-232-0514 katrinia.horton@rsdla.net
Marshall Middle @ OLL 2437 Jena St. New Orleans, LA 70115	Temp. 504-220-4619 Fax 7th-8th	Cordelia Lamb Cell 504-312-0748 cordelia.lamb@rsdla.net	N/A
Rabouin High School 727 Carondelet St. New Orleans, LA 70130	Temp 504-566-1717 Fax 504-566-1942 9th-12th	Adrienell Boyd Cell 504-220-6707 adrienell.boyd@rsdla.net	Co-Assistant Principals: 1. Ronald Barnett / 220-0998 ronald.barnett@rsdla.net 2. Mavia Marsalis / 220-4132 mavia.marsalis@rsdla.net
Reed Elementary (mods) @ Abramson 5552 Read Blvd. New Orleans, LA	Tel. 504-373-6221 Ext. 25005 PK-6th	Daphyne Burnett Cell 504-312-0760 daphyne.burnett@rsdla.net	Lois Jones Cell 504-312-0731 lois.jones@rsdla.net
Reed High School 5316 Michoud Blvd. New Orleans, LA 70129	Temp 504-255-9269 Fax 504-255-9802 9th-12th	Karen Collins Cell 504-312-0715 karen.collins@rsdla.net	Assistant Principal 1. Donald Jackson / 232-3759 donald.jackson@rsdla.net Interim Assistant Principal 2. Patrick O'Reilly / patrick.oreilly@rsdla.net
Schaumburg Elementary 9501 Grant St. New Orleans, LA 70126	Tel 504-373-6234 Fax PK-8	Josette Ripoll Cell 504-250-8470 josette.ripoll@rsdla.net	Mary Ellen Kelly Cell 504-312-0706 maryellen.kelly@rsdla.net
Schwarz Alt. High @ HCC 4950 Dauphine St. New Orleans, LA 70117	Temp. 504-312-0739 Fax 6th-12th	Ronald Ayler Cell 504-312-0729 ronald.ayler@rsdla.net	N/A

RSD School Contact Information
Revised 01/09/2008 at 12:30 pm
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RSD School Listings

School	Tel / Fax Lines	Principal	Assistant Principal
St. Julian Elementary 2701 Lawrence St. New Orleans, LA 70114	Temp. 504-361-4828 Fax PK-8	Annette Hagan Cell 504-312-0766 annette.hagan@rsdla.net	Joseph Walker Cell joseph.walker@rsdla.net
Sylvanie Williams Elem. 4127 Martin Luther King Blvd. New Orleans, LA 70125	Tel 504-373-6218 Fax N/A PK-5th	Clinton Smith Cell 504-312-3905 clinton.smith@rsdla.net	Tamsin Cyprian / cell 312-0758 Administrative Intern tamsin.cyprian@rsdla.net
Tureaud Elementary 2021 Pauger St. New Orleans, LA 70112	Temp 504-942-1469 Fax 504-942-8670 PK-6th	Perretta Mitchell Cell 504-250-0129 perretta.mitchell@rsdla.net	Loretta Brown Direct Line: 504-942-1469 loretta.brown@rsdla.net
Welcome School 2237 Poydras St. New Orleans, LA 70119	Tel Fax 6th-12th	Acting Co-Administrators: 1. Larnette Smith larnette.smith@rsdla.net 2. Bessie Porter bessie.porter@rsdla.net	N/A
Wicker Elementary 2011 Bienville St. New Orleans, LA 70112	Temp 504-571-1023 Fax 504-571-6317 K-8	Ella Lewis Cell 504-220-0267 ella.lewis@rsdla.net	Jacqueline Mahatha Cell 504-250-9408 jacqueline.mahatha@rsdla.net

School Breakdown	Count
Welcome School(s)	1
Alternative School(s)	1
Accelerated School(s)	1
Elementary Schools	22
Middle School(s)	1
High Schools	8
Truancy Center	1
Total #	35

Truancy Center
629 S. Rendon New Orleans, LA Tel 504-827-8851 Fax Administrator: Ponchitta Bondojia Cell 504-235-2587 ponchitta.bondojia@rsdla.net

APPENDIX 3.4

RSD Charter School Listing

School	Telephone	Principal	Board President	Email
Capdau Elementary 3821 Franklin Ave. New Orleans, La 70122	504-872-9257 Site Code-300001 K-8 th	Ms Christine Mitchell cmitch@uno.edu	Dr. Timothy Ryan	tryan@uno.edu
Capdau Early College High School 4621 Canal St. New Orleans, La 70119	504-994-3168/280-1414 Site Code-300999 9 th -12 th	Mr. Shannon Verret sverrett@uno.edu	Dr. Timothy Ryan	tryan@uno.edu
Nelson Elementary 3121 St. Bernard Ave. New Orleans, La 70122	504-942-3670 / Site Code-300002 Pre-K-8 th	Ava Lee Alee1@uno.edu	Dr. Timothy Ryan	tryan@uno.edu
Sophie B. Wright 1426 Napoleon Ave New Orleans, La 70115	504-304-3915 Site Code-397001 K-8 th	Sharon Clark Sharon_clark@nopa.k12.la.us	Dr. Rose Duhon-Sells	rdse@s@uno.edu
Green Charter Elementary 2319 Valence St. New Orleans, La 70115	504-304-3532/304-3536 Site Code-399001 K-8 th	Dr. Tony Recasner ar_nocms@bellsouth.net	Lawrence Kullman	larrykul@LKSALA.E.com
Eisenhower Elementary 3700 Tall Pine Dr. New Orleans, La 70131	504-398-7125 Site Code-395002 K-8 th	Cynthia Bernard cbernard@algierscharterschools.org	Elise Rose	erose@algierscharterschools.org
Behrman Elementary 715 Opelousas Ave. New Orleans, La 70114	504-324-7030 Site Code-395001 PreK-8 th	Ms. Rene Lewis Carter rlewis-carter@algierscharterschools.org	Elise Rose	erose@algierscharterschools.org
O.P. Walker High School 2832 General Meyers Ave. New Orleans, La 70114	504-363-1072 Site Code-395005 9 th -12 th	Ms. Mary Laurie mlaurie@algierscharterschools.org	Elsie Rose	erose@algierscharterschools.org
Fischer Elementary 1801 L.B.Landry New Orleans, La 70117	504-363-1009 Site Code-395003 Pre- K-8 th	Ms. Dahme Bolden dbolden@algierscharterschools.org	Elsie Rose	erose@algierscharterschools.org

7 charter schools w/ preK

3.4 P. 1

Mc Donogh 32 Elementary 800 DeArmas St. New Orleans, La 70114	504-363-1057 Site Code-395004 K-8 th	Mr. Lee Green lgreen@algierscharterschools.org	Elsie Rose	erose@algierscharterschools.org
Tubman Elementary 2013 General Meyers Ave. New Orleans, La 70114	504-363-1064 Site Code-395006 K-8 th	Pasty Gearing pgearing@algierscharterschools.org	Elsie Rose	erose@algierscharterschools.org
Martin L. King 1671 Caffin Ave New Orleans, La 70117	504-940-2243 Site Code-361001 Pre-K-8 th	Doris Hicks dorishicks@gmail.com	Hilda W. Young	hildayoung@yahoo.com
KIPP Believe/Phillips 1607 S. Carrollton Ave. New Orleans, La 70119	504-304-8857 Site Code-398001 5 th -6 th	Adam Meinig ameinig@kippbelieve.org	Jodi Aamodi	jmk_jodi@bellsouth.net
KIPP- Mc Donogh 15 721 St. Phillip St. New Orleans, La 70116	504-202-2004 Site Code-398002 PreK-8 th	Heidi Campbell hecampbell@mcdonogh15.org	Jodi Aamodi	jmk_jodi@bellsouth.net
Singleton Charter School 2220 Oretha C. Haley New Orleans, La 70113	504-568-3466 Site Code-390001 Pre-8 th	Ms. Melrose Biagas mbiagas@dryadesymca.com	Herman Kenneth Johnston	hkandbj@bellsouth.net
New Orleans City Park Academy 2733 Esplanade Ave. New Orleans, La 70119	504-897-5355/896-4065 Site Code-392001 K-8 th	Ms. Easter James easter.james@leonagroup.com	Dr. Matthew Proctor	mproctor11@alo.com
New Orleans Free Academy 3601 Camp St. New Orleans, La 70115	504-891-1353 Site Code-32002 K-8 th	Cynthia Moore cynthia.moore@leonagroup.com	Dr. Matthew Proctor	Mproctor11@alo.com
Lafayette Academy 2727 S. Carrollton Ave. New Orleans, La 70118	504-861-8370 Site Code-393001 K-7 th	Mr. Michael Landry Charles.landry@rsd.la.net	James Huger	jhugeer@jmhcompanies.com
Langston Hughes 3519 Trafalgar St. New Orleans, La 70119	504-352-4453/352-7620 Site Code-387001 5 th	John Alford jalford@mola180.org	Mickey Allweis	mailweis@lshah.com
Algiers Technology Academy 6501 Berkley Dr. New Orleans, La 70114	504-433-7134 Site Code-395007 9 th -12 th	Henderson Lewis hlewis@algierscharterschools.org	Elsie Rose	erose@algierscharterschools.org

3 of 13

New Orleans College Prep. 3127 M. L. King New Orleans, La 70113	504-274-3610 Site Code-385007 6 th	Mr. Ben Kleban bkleban@nolacollegeprep.org	Harold F. Brown fortune1c@att.net
KIPP Central City 1607 S. Carrollton New Orleans, La 70119	504-202-2011 Site Code-398003 5 th	Julie Lause jlause@kipp.org	Jodi Aamodt jmk_jodi@bellsouth.net
Abramson Sci /Tech Charter School 5552 Read Blvd. New Orleans, La 70125	504-244-4416 Site Code-389001 K-8 th	Mustafa Guvercin mguvercin9@gmail.com	Dr. Tevik Kosar kosar@cct.lus.edu
New Orleans Charter Middle 401 Nashville Ave New Orleans, La 70115	504-897-5359 Site Code-399002 3 rd -6 th	Bree Dusseault	Lawrence Kullman larrykull@LKSALAW.com
Andrew H. Wilson Charter School 1111 Milan St. New Orleans, La 70015	504-309-8090/473-5432 Site Code-388001 K-5 th	Ms. Shelia Thomas sheliathomas@cox.net	Constance Yeaton Connieyeaton@cox.net
Esperanza Charter School 4407 South Carrollton Ave. New Orleans, La 70119	504-251-1008 Site Code-386001 K-8 th	Mr. Lawrence Perkins lperkins@UNOcharterschools.org	Jewel Stafford jewelstaff@aol.com
McDonogh 42 Elementary 1651 North Tomt St. New Orleans, La 70119	504-942-3660 Site Code-394003 K-8 th	Ms. Sandra Frazier Sandra.frazier@rsd.la.net	Dr. Roslyn Smith Rjmith52@aol.com
Gentilly Terrace Elementary 4720 Painters St. New Orleans, La	504-232-0847/2320487 Site Code-396 Pre-8 th	Mr. Jonathan Williams jewilli7@uno.edu	

School Breakdown	Count
Elementary Schools	20
Middle Schools	4
High Schools	4
Total#	28



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Research Randomizer Results

1 Set of 50 Unique Numbers Per Set
Range: From 200 to 5000 -- Unsorted

Job Status: **Finished**

CHAPTER RANDOM SELECTION

Set #1:

2269, 470, 2755, 877, 4208, 2745, 4756, 561, 333, 1432, 2143, 3964, 1474, 3721, 2186, 3871,
339, 1144, 2433, 1302, 922, 4539, 4133, 4779, 463, 1151, 1197, 3287, 2424, 4492, 1807, 2712,
1946, 3790, 4439, 2728, 2333, 1007, 4679, 4010, 2436, 4374, 1726, 1221, 1374, 4330, 2400,
1932, 267, 345



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CHAPTER RANDOM SELECTION

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339, 1144, 2433, 1302, 922, 4539, 4133, 4779, 463, 1151, 1197, 3287, 2424, 4492, 1807, 2712,
1946, 3790, 4439, 2728, 2333, 1007, 4679, 4010, 2436, 4374, 1726, 1221, 1374, 4330, 2400,
1932, 267, 345



UNIVERSITY of
NEW ORLEANS

DEPARTMENT OF SPECIAL EDUCATION
AND HABILITATIVE SERVICES

Appendix 3.6

October 6, 2008

Ms.

I am completing my Ph.D. at the University of New Orleans and collecting noninvasive data in prekindergarten classrooms in the Recovery School District. I have obtained permission from Judy Romano to contact principals about this study.

The purpose of this study is to investigate how prekindergarten teachers design their classrooms to enhance early literacy and to gather information about teachers' training in and knowledge of classroom design that promotes early literacy. The two components of the study are as follows:

1. to observe one prekindergarten classroom using the Early Language and Literacy Classroom Observation Checklist (ELLCO) tool, after school when the children are not present
 - The observation should take 20 – 25 minutes.
2. to conduct a short interview with the prekindergarten classroom teacher, immediately after the classroom observation
 - The interview should take about 20 - 30 minutes.

Inclusion criteria for teacher participation are:

- Teacher certification in early childhood or early intervention
- Prekindergarten classroom teacher for at least two years
- Current classroom contains at least ten prekindergarten children.

Upon completion of the observation, interview, and teacher approval of the interview transcript, the teacher will be compensated with \$50.00 for participation.

If you are in agreement with your prekindergarten teacher's participation, please sign below and fax this letter to 482-1586 or email it to jdlorusso06@yahoo.com.

If you have any questions, please contact Judy Romano at 655-1993 or me at 782-7789.

Thank you for your consideration.

Sincerely,

Jo Ann D. LoRusso, M.A., A.B.D.
Doctoral candidate
University of New Orleans

Approved

Teacher's Name

Teacher's email

Teacher's phone



UNIVERSITY of
NEW ORLEANS

DEPARTMENT OF SPECIAL EDUCATION
AND HABILITATIVE SERVICES

Appendix 3.7

CONSENT FORM

1. Title of Research Study

Prekindergarten Teachers and Early Literacy

2. Project Director

Principal Investigator: Linda L. Flynn, PhD. 504-280-6541 (office)
Student Investigator: Jo Ann D. LoRusso, M.A. 504-782-7789 (cell)

3. Purpose of the Research

The purpose of this study is to ascertain: (1) whether prekindergarten teachers design their classrooms to enhance early literacy; (2) what do teachers base their decisions for designing classrooms to support early literacy?

4. Procedures for this Research

Classroom Observation

The researcher and a colleague (to assure inter-rater reliability) will rate the classroom design for early literacy enhancement using a standardized tool, the Early Language and Literacy Classroom Observation (ELLCO). The length of the classroom observation will be approximately 20 minutes.

Interviews

You will be asked to respond to a series of interview questions related to classroom design and early literacy. The interview will be audiotaped. The length of the interview will be approximately 20 minutes.

5. Potential Risks of Discomfort

This study is not expected to pose any risk or discomfort to its participants. You may take a break or skip questions as you deem necessary. **If you wish to discuss this or any related issues, you may contact the project director listed in #2 of this form, or you may contact Dr. Ann O’Hanlon at the University of New Orleans at 504-280-6501.**

6. Potential Benefits to You or Others

This study will achieve an increased awareness and understanding of the facilitation of literacy development via the classroom design. This information can be shared with colleagues and families. In addition, you will be compensated \$50.00 after you have checked the transcribed interview material.

7. Alternative Procedures

There are no alternative procedures. **Your participation is voluntary. You may withdraw consent and terminate participation at any time without consequence.**

8. Protection of Confidentiality

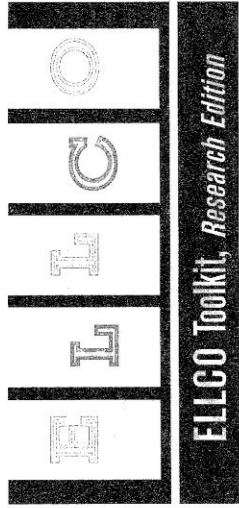
All data gathered through this project will be kept confidential. First, only the researcher will know the teachers’ names and phone numbers. Second, the interview tapes and transcripts will be numbered as a means of identification and to protect the identity of all participants enrolled in the project; no names of teachers will be used. In addition, the classroom observations will be numbered; no names will be used. Third, all audiotapes and observation data will be stored in a locked file cabinet that can only be accessed by the researcher and members of the dissertation committee who may wish to verify procedural methods or analysis. Fourth, upon completion of the study, all participant information, coded transcripts, and observation data will be destroyed using a cross shredder within a five-year period. The audiotapes will be destroyed with the same five-year period by being erased. Lastly, no names or other identifying information will be used in any publication or report of the findings.

By signing below, you are giving consent to participate in the above study. You may keep a copy of this signed consent form.

Signature

Printed Name

Date



Early Language & Literacy Classroom Observation

Observation Record

Program or district: _____ Center or school: _____

Teacher: _____

Time and duration of observation: _____

Duration of entire classroom day: _____

Number of teachers (e.g., teachers, co-teachers, aides): _____ Number of other adults: _____

Number of girls: _____ Number of boys: _____

Grades/ages of children: _____

Number of students with identified learning disabilities: _____ Number of English language learners: _____

Primary language used by teacher: _____

Primary language spoken in classroom: _____

Languages spoken by other students: _____

OBSERVATIONS COMPLETED

Literacy Environment Checklist

Classroom Observation and Teacher Interview

Literacy Activities Rating Scale

Observer: _____

Date of observation: _____

General comments: _____



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To learn more about the ELLCO Toolkit and its User's Guide,
go to www.brookespublishing.com.

The Early Language and Literacy Classroom Observation
(ELLCO) Toolkit is intended for one-time use only and can
be purchased in packages of five. To order, contact Brookes Publishing.

For information on bulk sales, contact Brookes Publishing's Sales
Manager at sales@brookespublishing.com, or call 1-800-638-3775.

For information on arranging training for the ELLCO Toolkit,
please contact Paul H. Brookes Publishing Co. (1-800-638-3775;
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Early Language & Literacy Classroom Observation (ELLCO) Toolkit, *Research Edition*

by Miriam W. Smith, Ed.D., & David K. Dickinson, Ed.D.
with Angela Sangeorge & Louisa Anastasopoulos, M.P.P.

Literacy Environment Checklist

by David K. Dickinson, Ed.D., & Louisa Anastasopoulos, M.P.P.

Classroom Observation and Teacher Interview

by Miriam W. Smith, Ed.D., & David K. Dickinson, Ed.D.
with Angela Sangeorge

Literacy Activities Rating Scale

by David K. Dickinson, Ed.D., & Louisa Anastasopoulos, M.P.P.

Literacy Environment Checklist

Book Selection

This checklist can be completed when no children are present, ideally before the children arrive. As classroom observers fill out this checklist, they become familiar with details of the environment. The careful attention paid to the environment helps observers complete the Classroom Observation; therefore, the checklist should be done prior to making the Classroom Observation.

Book Area

1. Is an area set aside just for book reading?

YES NO
1 0

Circle one:

If this area is used for other activities, such as for circle time or as a block area, score this item NO.

2. Is the area where books are located orderly and inviting?

YES NO
1 0

Circle one:

Are the books displayed on a bookshelf or bookcase? Are they oriented properly (front covers or spines facing out and right-side up)? Are they neatly organized?

3. Does the area where books are located have soft materials?

YES NO
1 0

Circle one:

Are there pillows, cushions, or comfortable furniture (e.g., couch) in the area so that children can look at books comfortably?

4. Do the books in the classroom range in difficulty level?

YES NO
1 0

Circle one:

This item refers to all books that are accessible to children, not only those books in the book area. Do some books have no words or very few words per page, whereas others have one or two paragraphs per page? Do some books include simple language, whereas others incorporate more sophisticated vocabulary?

5. How many books are easily available to children?

Fewer than 15 16-25 26+
1 2 3

Circle one:

Count all books that are accessible to children, not only those in book area.

6. How many books convey factual information?

0 1-2 3-5 6+
0 1 2 3

Circle one:

Count all books that are accessible to children, not only those in book area. Include science- or math-related books and social studies books or books about other cultures, as well as health-related books.

7. Are there three or more books related to the current theme?

YES NO
1 0

Circle one:

The current theme should be evident through classroom displays, activities, and teacher conversations with children. If you are unsure about the current theme, ask the classroom teacher.

Book Area Total

Book Selection Total

Book Use

How many books are easily available for children's use in the following areas? Only count books if the area in question is separate from the book area. For example, if the block area is also used as the book area, circle "0" for the number of books in the block area.

8. How many books are available in the science area?
 Circle one: 0 1-3 4+
9. How many books are available in the dramatic play area?
 Circle one: 0 1-3 4+
10. How many books are available in the block area?
 Circle one: 0 1-3 4+
11. How many books are available in other areas (not including the book area)?
 Circle one: 0 1-3 4+
- List these other areas: _____

12. Is there a place for children to listen to recorded books/stories?
 Circle one: YES NO
 1 0

The listening center does not have to be a permanent area in the classroom. However, it must be in working order and available to children without adult assistance on the day of your observation.

Writing Materials

13. Is an alphabet visible?
 Circle one: YES NO
 1 0
- This includes but is not limited to alphabet posters, stencils, and letter shapes. The alphabet must be at children's eye level or readily used by children.*

14. Are there word cards with names or familiar words?
 Circle one: YES NO
 1 0
- For example, are there cards with children's names held together on a ring or cards with familiar words posted on the wall next to or above the writing area? Word cards must be in a place intended to support children's writing. (Word cards do not include labels on objects around the room.)*

15. Are there templates or tools to help children form letters?
 Circle one: YES NO
 1 0
- For example, are there alphabet stencils, sandpaper letters, rubber stamps, and so forth?*

16. How many varieties of paper are available for writing?
 Circle one: 0 1-2 kinds 3+ kinds
 0 1 2

For example, are there construction paper, white lined and unlined paper, tracing paper, and so forth?

17. How many varieties of writing tools are available?
 Circle one: 0 1-2 kinds 3+ kinds
 0 1 2
- For example, are there pens, pencils, markers, crayons, colored pencils, magnetic letters, a chalkboard, a whiteboard, a typewriter, rubber stamps, and so forth?*

Literacy Environment Checklist

18. Is a distinct area set up and functioning for writing? YES NO
 Circle one: 1 0

In order to score this item YES, the area must be used only for writing. It cannot be combined with an art area, book area, or any other area.

Writing Around the Room

19. How many varieties of teacher dictation are on display in the classroom?
 Circle one: 0 1-2 3-5 6+

This item is designed to determine the variety, rather than the number, of dictations. If the display of teacher dictation consists of work from a one-time, teacher-led activity completed by all children, count it as one example. If a single display consists of unique or spontaneous work from each child or the works were completed over a longer period of time (2+ weeks), count each item as a separate example.

20. How many charts, big books, or other evidence of full-group literacy are there in the classroom?
 Circle one: 0 1-2 3-5 6+

Include teacher-created charts that show evidence of group discussion (e.g., My Favorite Color, Our Trip to the Aquarium).

21. How many varieties of children's writing are on display in the classroom?
 Circle one: 0 1-2 3-5 6+

This item is designed to determine the variety, rather than the number, of child writing samples on display. If the display of children's writing consists of work from a one-time, teacher-led activity completed by all children, count it as one example. If a single display consists of unique or spontaneous work from each child, or the works were completed over a longer period of time (2+ weeks), count each item as a separate example.

22a. Are there writing tools in the dramatic play or block area?
 Circle one: YES NO
 1 0

For example, are there paper, pens/pencils, a chalkboard, a typewriter, and so forth?

22b. Are there props that prompt children to write in the dramatic play or block area?
 Circle one: YES NO
 1 0

If there are no writing tools in the dramatic play or block area (i.e., you scored item 22a NO), then mark this item NO. Props include items such as clipboards, telephones, menus, and so forth.

23. Are there alphabet puzzles available for children's use?
 Circle one: YES NO
 1 0

Alphabet puzzles must include all letters of the alphabet. Puzzles must be available without adult assistance.

24. Are there puzzles with words available for children's use?
 Circle one: YES NO
 1 0

Puzzles with words must include several short words, and meanings must be clearly indicated by pictures. Puzzles must be available without adult assistance.

VITA

The author was born in Everett, Massachusetts. She obtained her Bachelor's degree in general studies from the University of New Orleans in 1999. She joined the Louisiana State University psychology graduate program to pursue a Master's degree in cognitive psychology in 1999, and became a member of Dr. Jason Hicks' learning and memory research group. She received her Master's degree in 2001. She joined the University of New Orleans special education graduate program in 2001 and became a member of Dr. Linda Flynn's early intervention program.