A Program to Improve Emergent Literacy Skills
Among African American Preschoolers

by
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Approval Page

This applied dissertation was submitted by Verlyn M. Evans under the direction of the persons listed below. It was submitted to the Fischler School of Education and Human Services and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

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Abstract

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This applied dissertation was designed to improve emergent literacy skills among young African American children from a low socioeconomic background. The researcher determined that African American prekindergarten children in her work setting in a More at Four program in North Carolina were not demonstrating the desired range of emergent literacy skills. The behavior and performance of these students indicated a particular deficit in these students' oral language, oral vocabulary, alphabet and letter recognition, phonemic awareness skills, and concepts about print.

The researcher developed a 16-week intervention program that included a daily read-aloud and shared-reading program, a conversational story-retelling program, an alphabet-knowledge and phonemic-awareness program, and ongoing professional development for the classroom teachers. The 17 participants in the study were 4-year-olds in the More at Four program, along with the classroom teacher and 2 assistants who worked with the researcher to deliver the intervention program. The program itself was implemented daily and delivered to both large and small groups as part of the regular day in the classroom setting. Pre- and posttests were used to determine the progress made by the students in the areas of oral language, oral vocabulary, letter naming and letter recognition, letter-sound knowledge, phonemic awareness, and concepts about print.

The findings revealed that the solution strategies implemented in this applied dissertation were effective in improving the emergent literacy skills of all the student participants. The targeted outcomes were met in terms of oral language, oral vocabulary, letter naming and letter recognition, and concepts about print. However, the targeted outcomes were not met in terms of letter-sound knowledge and phonemic awareness skills, although the students made considerable progress in these areas. The results of the study speak to the benefits of a read-aloud and shared-reading program as well as direct instruction in letter recognition and concepts about print at the prekindergarten level, especially for at-risk children. The student participants demonstrated considerable enthusiasm for the program and enhanced their emergent literacy skills.

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Chapter 1: Introduction

Description of Community

This applied dissertation took place in an urban community located in the central region of North Carolina. The community has experienced a growth rate of 23% over the past 10 years and has a current population reported at 85,839. The ethnic diversity is this area is varied, with 60.6% of the residents listed as Caucasian, 31.8% as African American, 4.9% as Hispanic or Latino, 3.3% as Asian, 0.5% as American Indian or Alaska Native, and 1.6 % listed as having two or more races in their ethnicity.

The business community in the city and surrounding area revolves around manufacturing, services, retail trade, wholesale trade, finance, insurance and real estate, transportation and public utilities, and construction. However, the overall economy in the county has been weakened of late by a decline in the manufacturing industry, resulting in an increase in the number of unemployed residents. The median household income in the area is approximately $40,137, and persons below poverty level represent 13.2% of the county's population.

Work Setting

The work setting for this applied dissertation was a private prekindergarten (pre-K) program that provides educational services to at-risk 4-year-olds in the city. The preschool program, known as More at Four, is part of the broader educational pre-K program in North Carolina designed to ensure that at-risk 4-year-olds start school with the necessary skills for success. The More at Four program focuses on reaching those at-risk, young children who are not served by any other early education program. As such, the More at Four program addresses a gap in the availability of high-quality pre-K programs for young children who would most benefit from an early education

opportunity but do not have access to a quality program.

The aim of the More at Four program is not only to provide a quality educational environment for all preschool children regardless of economic status, but also to empower these children and their families in ways that will allow them to meet academic success in the formal school environment. Given this aim, More at Four pre-K programs must meet the highest standards that have been proven effective in promoting school readiness. Participating programs must hold a 4- or 5-star rating, according to childcare licensing standards. Class sizes must remain small, with no more than 18 children per class, and each class must have one teacher plus one or two teacher assistants. Teachers in the program must be licensed in early childhood education within a designated timeframe and must use a comprehensive, research-based curriculum.

The specific More at Four facility of concern in this applied dissertation had been in operation in this community for 3 years prior to this study. At the time of this dissertation, one classroom program was in operation, with the program delivered by one lead teacher and two assistant teachers. The lead teacher held an associate's degree in Childhood Education as well as the North Carolina Child Development associate's degree and was working on a bachelor's degree in Birth–Kindergarten Certification. The teacher's two assistants both held North Carolina Child Development associate credentials as well as associate's degrees in Early Childhood Education.

The More at Four class involved in this study had 17 students, who were all of low socioeconomic status (SES). The ethnic makeup of this group was predominately African American. Of the 17 children in the program, 14 were African American, 2 were Caucasian, and 1 was Hispanic. The gender of the group was almost evenly divided, with 8 boys and 9 girls. Children must be 4 years of age to enter the program, but at the time

of the study, the children's ages ranged from 4 years 3 months to 5 years 2 months.

Writer's Role

The writer is in private practice as a speech and educational therapist providing direct and consultative services to preschools and families. The writer holds both a bachelor's degree in Elementary Education and a master's degree in Speech-Language Pathology and has provided services for more than 10 years to the preschool population in the central region of North Carolina. Consultation services include both direct and indirect speech-language and educational services to children with speech, language, and educational deficiencies. Services are initiated upon request and consist of screening, assessment, goal setting, staff training, and family and interagency consultations. In addition, the writer has a special interest in emergent literacy and in the promotion of awareness among the community about the ways and means of promoting early literacy.

In this role as a speech and educational therapist, the writer has been involved directly with the More at Four program in this study and has provided speech, language, and educational services to the at-risk children enrolled in this preschool setting for 2 years. During that time, the writer has provided direct speech, language, and educational therapy services to the children who were referred for therapy by the director or other local agencies. The children had been treated for their speech, language, and educational deficits two to three times per week at the center, based on the severity of their disorders. The writer provided these services using two different models—an individual pull-out model and an inclusion model.

In addition to working with the children and teachers in this setting, the writer has been involved actively in this community in disseminating information about emergent literacy and in promoting a range of intervention strategies aimed at benefiting young

children. The writer continues to conduct workshops for professional and parent groups and also promotes a yearly literacy day event in this community. These professional activities, in conjunction with this writer's professional relations with early interventionists and other professionals interested in emergent literacy, have resulted in this writer's assuming a leadership role in the development and provision of services for at-risk African American preschoolers from low SES.

In her role as a speech, language, and educational therapist, the writer had no administrative power or authority in the work setting over the More at Four preschool program. However, the writer assumed full responsibility for assuring that all aspects of the intervention were planned and implemented and utilized leadership skills to ensure that the program was implemented as planned.

Chapter 2: Study of the Problem

Problem Statement

The problem addressed in this applied dissertation was that African American pre-K children of low SES did not exhibit desired emergent literacy skills. Specifically, these lacking literacy skills included oral vocabulary, alphabet and letter recognition, phonemic awareness, and concepts about print skills.

Problem Description

Implicit in the notion of emergent literacy is the basic assumption that the acquisition of literacy begins early and continues throughout life (Morrow, 2001). Clay (1966) initially introduced the term *emergent literacy* and in doing so helped to clarify that children acquire information about reading, writing, and language prior to entering school, and that this becomes the basis for their literacy development in school settings. More recently, other theorists and educators such as Miller (2000) and McGee and Richgels (2003) have repeated the same message, stressing that the literacy knowledge children acquire before they begin formal instruction in first grade is very important to their future literacy success as readers, writers, and language users.

From this perspective, there is a need to focus on the development of emergent literacy as it relates to that segment of preschoolers who are at risk in terms of early literacy development. As noted in the reports of reading panels from the National Institute of Child Health and Human Development (2000) and the Ontario Ministry of Education (2003), children from specific SES, cultural, and language backgrounds are often considered at risk and are often likely to experience problems in learning to read and write. Farkas (2000) stressed that such children are at a disadvantage in terms of early literacy development, because they encounter too few opportunities early on for

experiences related to books, vocabulary development, and such activities as learning the names of letters and the sounds they represent. Adams (1990) further pointed out that such children often reach the end of first grade seriously behind their peers and already in a cycle of failure. Although the children in this category vary in terms of race and ethnicity, many are African Americans of low SES, and the development of emergent literacy skills among this population requires specific attention (Washington, 2001).

The writer's work in the More at Four program revealed that low levels of skills in emergent literacy were present among the African American students from low SES backgrounds. The majority of these students in the program did not demonstrate the desired range of emergent literacy skills. The behavior and performance of these students indicated a particular lag in these students' oral vocabulary, alphabet and letter recognition, phonemic awareness, and concepts about print. A solution was needed to help these at-risk students early on, and the writer's applied dissertation intervention was designed to address the problem.

Problem Documentation

The literature, as noted above, provided evidence that African American children from a low SES background have low levels of skills in emergent literacy. Additional context-related evidence from the writer's work setting served to document the existence of the problem in the specific More at Four program in this study. This evidence was in the following four areas:

1. Data available from the program center records for the previous school year (2004–2005) revealed that 15 of the18 pre-K children present in the program had below-average emergent literacy skills, as evidenced by language scores on the Developmental Indicators for the Assessment of Learning, third edition (DIAL-3; Mardel-Czudnowski &

Goldenberg, 1998), an assessment taken at the beginning of the school term.

2. Informal conversations with the three teachers in the center's pre-K program during the same school year (2004–2005) revealed their perception that 18 of the 18 students exhibited poor vocabulary skills and were unable to express themselves adequately in Standard American English.

3. During direct and indirect work sessions with the children in the program at the beginning of the 2004–2005 school year, the writer noted that 16 of the 18 students exhibited unfamiliarity with books and an awareness of concepts about print. Specifically, the students demonstrated an unawareness of the difference between letters and words, the characteristics of books (e.g., author, title, and print contains message), and the elements of print directionality (e.g., left to right and top to bottom).

4. Personal classroom observations by the writer of the daily performance of the students during language periods over the 2004–2005 school year revealed that 18 of the 18 children had great difficulty recognizing or identifying letters and phonemes in the English language.

Causative Analysis

The writer identified four probable causes of the problem in the area of emergent literacy among the low-SES African American students in the writer's work setting. The writer arrived at the following four causes following a review of the literature as well as time spent in observation and interaction with the teachers and students in the school setting:

1. The first probable cause of poor development in emergent literacy related to the reality that African American children from low-SES backgrounds often do not have extensive experience with books prior to school. Britto (2001) identified inadequate

family literacy environments of low-SES African American children as a factor in their inexperience with print. The writer had observed that children in the school setting were not familiar with books and were not using books appropriately in the classroom. The writer also had observed students in this setting consistently ignoring the selection of books to read during free play periods, confirming that books and reading were not valued.

2. The low-SES African American children in the writer's school setting have had limited opportunities early on to expand their oral language vocabulary. The writer had observed children in the school setting exhibiting difficulty expressing themselves fully and often avoiding situations in the classroom setting that required oral responses. McGee and Richgels (2003) identified a correlation between low SES and limited skills in using Standard American English as a possible cause for the identified oral language deficits exhibited by low-SES children such as those in the writer's school setting. Others such as Pullen and Justice (2003) and Morrow (2001) have stressed that the development of oral language skills is critical to future achievement in reading.

3. The low-SES African American children in the writer's school setting have had limited exposure to and experience with identifying letters and sounds in the English language. The writer had observed children in the classroom setting incorrectly identifying letters and sounds during class activities and had conferred with the center director about the children's lack of progress in letter and sound recognition skills. Washington (2001) identified these deficits as being related to poverty, cultural linguistic differences, and low educational expectations in low-SES African American communities.

4. There was a lack of adequate training in the writer's school setting for the

teachers of these low-SES African American children. In short, emergent literacy
teachers often lack knowledge of the use of specific strategies to improve the emergent
literacy skills of low-functioning children. The writer had conferences with teachers
regarding their frustrations about feeling inadequately prepared to meet the literacy needs
of the children in their care. Heibert and Taylor (as cited in McGee & Richgels, 2003)
noted that a high percentage of children with literacy related problems can become better
readers with adequate instruction, and that teachers require specific training to address
the needs of such children.

Relation of the Problem to the Literature

In an effort to more fully understand emergent literacy and the poor skill level in
emergent literacy among low-SES African American students, the writer searched the
literature to uncover themes and issues related to the topic. This section highlights key
aspects of the theory surrounding early literacy development and summarizes the
literature addressing literacy development, especially as it pertains to African American
children from a low-SES background.

The importance of addressing emergent literacy in African American children.
Attention to the development of early literacy skills is especially important in the United
States of late, given the nation's commitment to improving the level of literacy of all
children. Barone and Morrow (2003) stressed that the implementation of early childhood
literacy best practice is at the foundation of President Bush's No Child Left Behind Act
of 2001. President Bush indicated in this act that programs that enhance the literacy skills
of young children are of paramount importance. According to Armbruster, Lehr, and
Osborn (2001), however, large numbers of children in American schools continue to have
difficulty learning to read. They argued that a child's lack of success with acquiring

reading skills is a key component in developing poor motivation, poor self-confidence, and poor academic performance in school. Many of the children doing poorly in school are African American; thus, attention to developing the literacy skills of these students is crucial (Britto, 2001; Washington, 2001).

McGee and Richgels (2003) further addressed the importance of attending to literacy at this early stage. They argued that the development of children's literacy knowledge before they reach first grade is important to children's future literacy success. Prior to first grade, the authors contended, children should attain a general understanding of basic literacy components such as the alphabet system, the ways in which reading and writing are used, and the role of comprehension strategies. McGee and Richgels (2003) emphasized that there is a good basis for concluding that if children fall short of developing adequate literacy skills early on, their future development is at stake, because below-average literacy skills are related to unemployment, poverty, and a failure to complete high school. McGee and Richgels (2003) further pointed out that in spite of awareness of the correlations associated with poor literacy skills, many children living in families with a low SES do not receive the necessary interventions to become good readers.

McGee and Richgels (2003) argued that children of low-income households often lack the opportunity to learn, as opposed to not having the ability to learn. They recognized that poor children who are involved in early literacy programs often have weaker skills than their peers from a higher economic status, and they claimed that low SES and a limited ability in using Standard American English reliably can predict future literacy success in preschoolers. McGee and Richgels (2003) supported the use of preschool emergent literacy programs designed to avert reading failure in these at-risk

children. It is possible, they maintained, for all children to become proficient in literacy skills if the instruction they receive meets a variety of developmental needs and is presented in a well-designed format.

Washington (2001) argued that African American children are most in need of added attention and focused instruction in early literacy. Washington contended that variables associated with African American children influence their literacy performance and that these variables include cultural linguistic differences, poverty, educational expectations, and assessment practices. According to Washington,

> The prevention of reading difficulties in our highest risk populations should be a national research and educational priority. These children often come to school with deficits in key skill areas such as language and early literacy skills that may predispose them to failure. Identifying or predicting these difficulties and implementing effective intervention when these children enter primary school has been the primary focus of our research efforts and has contributed invaluable information. However, prevention is our main goal and these efforts should begin prior to entry into kindergarten. Low income, minority students present the greatest challenge to these prevention efforts. (p. 219)

As Washington pointed out, adequate efforts toward improving the early literacy skills of African American children are of the utmost importance and should be addressed with directions for intervention by all involved in the process of early education of African American preschoolers.

Theoretical perspectives on emergent literacy. Adams (1990), a key figure in the study of emergent literacy, stated that learning to read is a complex process. She noted that reading skills are not isolated skills; rather, reading is composed of interrelated fields of knowledge and activities. According to Adams, a combination of experiences along with the ability to apply skills is vital if a child is to become a successful reader. Additionally, the child must be able to link print to language to become a good reader, and as such, spelling, vocabulary, and phonemic awareness also become vital to the

development of reading skills.

Adams (1990) also stressed that predictors of reading success deserve attention in the early years. For early childhood, she maintained that oral language ability and strong phonemic awareness serve as good predictors. Whereas many children have prior experiences and knowledge that allow them to become successful readers by the time they enter first grade, other children enter first grade without adequate preparation, and it is imperative that the unprepared children are provided with instruction that will enable them to gain this knowledge. Adams concluded that a strong commitment to literacy instruction in preschoolers is a valuable investment for children who are not exposed to print in the home and in society overall.

Other experts in the literacy field have continued to advance the same message as Adams (1990). According to the Ontario Ministry of Education (2003), for example, academic achievement in school is directly correlated to a strong foundation in reading, with the critical period for acquiring reading skills being from ages 4–7. As stated by the Ontario Ministry of Education's early reading expert panel, the skills required to become a reader begin with the advancement of verbal skills and progress to the development of independent reading skills. Yet, as also stated by the Ontario Ministry of Education's expert panel, while children from specific SES, cultural, and language backgrounds are likely to experience reading problems, this does not mean that these children are unable to learn to read. The Ontario Ministry of Education concluded that teachers must be prepared with adequate materials and strategies to teach these at-risk students, and teachers must respect the cultural diversity of these students by building upon their diversity to equip them to become successful readers.

A study by Britto (2001) yielded findings that have important implications for

both research and practice in the study of emergent literacy in African American children of low-income families. Britto concluded,

> The family literacy environment needs to be understood within the social and cultural context in which the family resides. Additional directions for future research include examining parental beliefs and attitudes towards literacy as potential influences on the family literacy environment. With respect to practice, given the strong positive associations between the different aspects of the family literacy environment and children's emergent literacy, parents and caregivers need to expose children to print in a variety of ways other than book reading. Also, given that specific aspects of the family literacy environment are associated with specific child literacy skills, interventions to improve problem areas in children's literacy development could target those specific areas of the environment associated with that specific skill. (p. 347)

Another theoretical perspective focuses on the need for an alignment of appropriate literacy expectations, appropriate literacy instruction, and national standards in relation to early literacy (Bodrova, Leong, & Paynter, 1999). The argument in this regard is that the skills young children need to become successful readers and writers are not specifically labeled as reading and writing, and that an effective implementation of national reading standards in schools requires a more specific description of the early educator's role. For this reason, Bodrova et al. contended that to be successful in early literacy instruction, teachers need to become skilled at using appropriate strategies. They pointed out that it is equally important to address the following three questions when developing a literacy program to meet the developmental needs of preschoolers: (a) Which aspects of literacy are appropriate developmentally, (b) which instructional strategies are appropriate developmentally, and (c) when are children prepared to receive instruction related to particular concepts? Additionally, it is important for preliteracy skill milestones to be made clear in daily classroom instruction and activities. Finally, Bodrova et al. emphasized that readiness should involve determining both when a child can benefit from a technique as well as when the child can no longer benefit from a

technique. From this perspective, readiness becomes associated with the time period when a child benefits most from an instructional method.

Barone and Morrow (2003) advocated the use of significant documented practices in literacy instruction aimed at young children. They stated that in times past, reading skill development was emphasized only at the first grade level, but that at the present time educators understand the importance of preschool literacy instruction, especially for children who are at risk for elementary school failure. Snow et al. (as cited in Barone & Morrow) stated that by the time children enter kindergarten, they should be able to recognize and name uppercase and lowercase letters and possess good phonemic awareness skills. Barone and Morrow stated that upon entering first grade, most children should understand the differences between sounds, letters, words, and sentences. Preschool teachers, then, need to ensure that their students are exposed to direct instruction in letter name knowledge, phonemic awareness, and letter-sound associations. At the functional level, teachers can teach these concepts through categories. Conceptually, teachers can dictate recorded narrations of children's experiences to tie speech to print. Short engaging tasks related to prereading concepts are adequate. Additionally, unconventional methods such as dramatic play and retelling stories need to be considered as intervention strategies. Literacy skills in young children can be enhanced through drama and storytelling in the classroom, according to Barone and Morrow. When children become immersed in retelling stories, they improve their ability to understand vocabulary and to make inferences and increase their oral communication skills.

Determining the effect of specific early intervention programs for minority children of low-income families was the focus of a study by Conyers, Reynolds, and Ou

(2003). They sought to determine the effect of early intervention on the number of low-income, minority students later placed in special education programs. A basic assumption throughout their study was that early interventions designed to reduce the negative effects of poverty on child development consequently may play an important role in reducing the number of African American children labeled with disabilities and placed in special education. Conyers et al. found that young children who participated in a specific preschool program in Chicago had a significantly lower rate of later special education placements. They arrived at the conclusion that there are significant gains in the short term on the cognitive abilities of participants in early intervention programs when the programs are of good quality.

Finally, a study by Dyson (1990) addressed the need for early childhood teachers to relate appropriately to children from varied ethnic and social backgrounds when promoting literacy development in the classroom. Dyson stated that teachers who teach students from socioculturally diverse backgrounds may find themselves better able to relate to the behaviors of children with similar literacy backgrounds. Therefore, there is a need to be able appropriately to address and respond to the literacy needs of all children, because "children bring to school varied social understandings and personal connections to print" (Dyson, p. 204). Utilizing the child's personal experiences is important, according to Dyson, because minority children have been documented to ascribe to peer orientation. Peer orientation results in these children's valuing what is important to their peers as opposed to what is important to their teacher. Dyson stated, "This diversity has sociocultural roots, thus highlighting that it is our socially and culturally diverse classrooms that present the most critical need for rethinking our metaphors for teaching and learning" (p. 206).

Components of emergent literacy. According to Juel (as cited in Morrow, 2001), a child must acquire specific emergent literacy skills in order to become a good reader, including alphabet knowledge, phonemic awareness, and an understanding of a connection between letters and sounds. Armbruster et al. (2001) also noted the specific need for children to acquire phonemic awareness skills early; children who can identify and manipulate phonemes, syllables, and words experience less difficulty learning to read. Beyond this, however, Armbruster et al. maintained that the development of vocabulary and comprehension skills is also central to developing good reading skills in young children, and that these can be improved indirectly (via reading aloud to children and encouraging them to read on their own) and directly (through a range of activities related to specific words and their meanings).

Clay (1966, 1989) argued that learning to become literate relies on a different set of emergent skills. She contended that children need to acquire the ability to attend to print both visually and mentally in order to benefit from formal instruction. She maintained, for example, that a child's inability to track successfully when reading hinders his or her progress in developing adequate reading skills. Clay argued that the child needs to acquire certain concepts about print early on in order to be successful in learning to become literate. Clay (1989, 2000b, 2002) developed a measurement tool for concepts about print and has specified a range of concepts, including identifying the front and back of a book; discriminating that print has meaning; recognizing letters and words; and differentiating first, last, uppercase, and lowercase letters in words.

Justice and Ezell (2004) suggested that adults can use both verbal and nonverbal cues to help a child attend to concepts of print and the forms of printed language, and that these cues can range from pointing to print, asking questions related to the print, making

print-related requests with children, and commenting about print. Theoretically, print-referencing activities should be within the child's zone of proximal development, as defined by Lev Vygotsky. This theory advocates exposing children to concepts that require the assistance of others to steer them toward independence and mastery of a skill (Justice & Ezell, 2004). By focusing on emergent literacy concepts that have not been mastered by the child, the adult provides important exposure to future concepts to be mastered. In addition, print referencing assists a young child in developing critical language awareness skills such as print and word concepts and alphabet knowledge. More importantly, Badian (as cited in Justice & Ezell, 2004), clarified that a child's development of print, word, and alphabet knowledge serves as a good indicator of the achievement level of later developing literacy skills.

Beyond a focus on concepts of print, other early literacy experts have pointed to different aspects as the key to early literacy development. According to Morrow (2001) and McGee and Richgels (2003), oral language is the foundation of literacy development, and, as such, emergent literacy builds on oral language facility. The connection between oral language skills and early reading skills was the focus of Roth, Speece, and Cooper's (2002) study. The data analyzed in their study were gathered from a previous longitudinal study that focused on clarifying the relationship between oral language and early reading skills in children who were developing normally. The results suggested that emergent literacy components other than phonological awareness skills were also good predictors of future word level, reading, and comprehension skills, and that the role of oral language was indeed crucial.

The development of oral language in preschool settings has been addressed by a number of educators. For example, Dickinson and Smith (1994) investigated the long-

term effect of book reading by preschool teachers with children of low SES. They analyzed data from an earlier longitudinal study that had focused on both the social and linguistic skills vital to the development of language and literacy in children from low-SES, English-speaking families. Their findings indicated that teachers can enhance children's oral language and literacy skills by integrating questions that analyze the story being read.

Beck and McKeown (2001) stressed as well that improving language skills in young children is very important. They encouraged readers to effectively use read-aloud time to enhance young children's literacy skills. They argued that when attempting to improve oral language skills in children, proper management of the discussion period during read-aloud time is an important component of the process. Furthermore, according to Beck and McKeown, "Key to the task is keeping important text ideas in focus while monitoring children's often limited responses and scaffolding their ideas toward constructing meaning" (p. 19).

In addition to a focus on concepts of print and oral language, other skill areas have been highlighted by other experts as key components of emergent literacy. Some, such as Dodd and Carr (2003) have stressed the primacy of letter knowledge. They conducted a study to explore three aspects of letter knowledge: (a) letter-sound recognition, (b) letter-sound recall, and (c) letter reproduction. Their study also considered the impact of age, gender, and SES on the acquisition of letter-sound skills. The participants in their study were 83 students in the United Kingdom, with approximately half of these characterized as low SES. The results of their study supported the principle that letter-sound knowledge skills do not develop concurrently, but rather develop in the following order: letter-sound recognition, then letter-sound

recall, and finally letter reproduction. More importantly, their findings revealed that children from a low-SES background performed at the lowest levels when assessed for their letter-knowledge abilities, suggesting that these children need training that emphasizes the foundational skills of letter knowledge and print awareness.

Although letter knowledge is accepted as a key component of early literacy, the acquisition of phonological awareness in preschool children is also considered of primary importance to some theorists. Carroll, Snowling, Hulme, and Stevenson (2003) worked with 67 preschool children over a year, testing them three times during the school year. Their findings suggested that phonological awareness skills do not develop simultaneously; instead, children develop each skill separately, and they develop their syllable and rime awareness skills before they develop their phonemic awareness skills. Their study also advanced the notion that phonological awareness skill development is segmented into early-developing skills and later-developing skills. Furthermore, implicit skills are acquired in normal language development, whereas explicit skills are later developing. These later-developing, explicit skills also increase in conjunction with a child's articulation abilities.

The development of emergent literacy skills in school settings. Although it is important to recognize the components of early literacy, it is also important to recognize how the development of these skills can be promoted, especially in school settings. Justice and Kaderavek (2002) claimed that the awareness required to become a successful reader should be a basic part of every child's life, and that the development of such awareness should begin early, before the child enters school. They held that such awareness and knowledge should first come to children as parents and caregivers cuddle them on their laps and read to them: "Teachers, other professionals, and parents can use

specific shared-reading techniques to increase positive social interactions centered on storybooks. In turn, these positive shared-reading experiences can help develop motivated, engaged, and highly knowledgeable emergent readers" (Justice & Kaderavek, 2002, p. 12).

Beyond the home setting, early literacy must be promoted in preschool settings. The relationship of preschool instructional approaches to classroom competencies among urban children from a low-SES background was the focus of Fantuzzo, Perry, and McDermott's (2004) study. The participants in the study were 642 children enrolled in an urban Head Start program, with 85% of these students being low-SES, African American children. The researchers used classroom teachers to measure approaches to learning and trained observers to measure emotional self-regulation and autonomy in the classroom environment. Further assessment of expressive and receptive vocabulary skills occurred. The results of the study confirmed that early educators who work with low-SES children in urban environments need to be prepared to adjust the curriculum to meet the needs of these students. Fantuzzo et al. also concluded that school readiness should be a top priority with the urban African American preschool population, primarily because of their vulnerability to school failure.

The nature of the classroom environment is seen by many as an important factor in developing literacy in school settings. The role of a play environment in promoting literacy in children during their preschool and kindergarten years was the focus of Morrow and Rand's (1991) study. Play is viewed as important in assisting the child to assimilate new information and consolidate it with past experience; Morrow and Rand stated, "Play is an ideal setting which allows the young child to practice, elaborate and extend emergent literacy abilities" (p. 397). Morrow and Rand attested to the positive

impact of using play to promote literacy, and they concluded that when teachers

introduce literacy materials and guide children, preschoolers and kindergarteners are

likely to engage in these literacy activities voluntarily. Morrow and Rand also found that

the physical components of a classroom can be equally important in impacting early

literacy behaviors of young children; in particular, a dramatic play area that includes

literacy materials encourages children to engage in literacy activities. With regard to the

role of the teacher in a play environment, Morrow and Rand concluded that the teacher

should be actively involved not only to guide, but also to model appropriate literacy

behaviors for children.

Given that many children are at risk in terms of their future success in literacy,

there is a strong argument for early intervention programs in school based on aggressive

early literacy instruction for these children. Heibert and Taylor (as cited in Morrow,

2001) stated that the availability of early intervention programs definitely can enhance

literacy learning in at-risk children. Slavin, Madden, and Stanovich (as cited in Morrow)

reached a similar conclusion about the goal of early intervention, stating that the early

interventionist's purpose is to improve early literacy skills to be commensurate with the

at-risk child's same-age peer group.

Justice, Chow, Capellini, Flanigan, and Colton's (2003) study focused on

determining which emergent literacy intervention approach was effective for use with

preschoolers with multiple risk factors. A basic assumption throughout their analysis was

that a child's performance on various emergent literacy skills is a good indicator of how

well that child will perform on literacy tasks in later educational environments. The

results of their study reflected positively on the use of interventions in improving

emergent literacy skills in preschoolers. Preschoolers identified as having a variety of risk

factors showed a great amount of improvement in targeted emergent literacy skills after being exposed to the total 12-week intervention period. Finally, the children's skills levels in both oral language and their orientation to literacy were good predictors of their emergent literacy functioning. Justice et al.'s (2003) study supported the notion that emergent literacy intervention can have a significant positive impact on children who are identified as at risk with multiple exacerbating factors present. The results of their study also supported the need for children to participate in simple instructional activities that focus on specific areas of skill development, such as letter naming, name writing, and rhyming. Furthermore, Justice et al. (2003) concluded,

> Given the current interest in identifying approaches that effectively and efficiently promote skill developments in areas associated with literacy outcome, particularly for at-risk children, this study provides critical evidence that participation in explicit skill building activities is an effective means for enhancing emergent literacy growth. (p. 329)

According to an earlier study by Justice and Ezell (2001), at-risk preschool children from low-income households demonstrated strengths in some areas of written language awareness and limited skills in other key areas. In particular, the children showed generally low skill levels on tasks measuring print and word concepts, alphabet knowledge, and metalinguistic terminology. Justice and Ezell (2001) argued that these early literacy skills should be targeted in preschoolers from low-SES households. They held that mastery of the tasks used in their investigation might be viewed as benchmarks for entrance into school and for beginning formal instruction, and that as such the development of these skills in key areas of written language awareness is needed for children from low-income households. Dodd and Carr's (2003) study of the impact of age, gender, and SES on the acquisition of letter-sound skills in school confirmed that children of low SES performed at the lowest levels when assessed for their letter-

knowledge abilities, that these children have need of training that emphasizes the foundational skills of emergent literacy such as letter-knowledge and print-awareness skills, and that these children develop these skills when provided with sound instruction.

Phonological-awareness skills also have been viewed as good indicators of future reading competency; therefore, strategies for instruction in phonological-awareness skills were the focal point of Lane, Pullen, Eisele, and Jordan's (2002) effort. Smith, Simons, and Kameʻenui (as cited in Lane et al.) affirmed that phonological-awareness skills are vital for the later development of reading skills. A basic assumption pertinent to the study of instruction in phonological skills is that instruction should be carried out in basic activities throughout the school day. Furthermore, students who require much attention can benefit greatly from 10–20 minutes of daily individual or group instruction. Lane et al. concluded that phonological-awareness training should be integrated into existing reading instruction. Explicit and fun instruction in phonological awareness should be used with children in the classroom setting. A blend of both formal and informal instructional methods should meet the needs of students from varied backgrounds.

Farkas (2000) strongly advocated for implementation at both the academic and intervention levels to bring about school success among children from low-SES backgrounds. Farkas outlined some solution strategies to improve opportunities for academic success in this population of children. According to Farkas, children from a low SES often begin their lives at a disadvantage due to a diminished support system in comparison to their middle-income peers. Research by Duncan and Brooks-Gunn (as cited in Farkas) made a convincing argument as well when comparing middle-income environments with low-income environments. Poor emotional and physical support, poor preparation for school, insufficient nutrition, and negligent daily environments all

contribute to poor academic success. Furthermore, poor children regularly enter school unable to attend adequately to the subject matter being presented. With extensive knowledge of the issues that work against low-income children and their abilities to become literate, Farkas suggested some program development and policy implementations to close the gap in school settings. Farkas proposed that both cognitive and behavioral skills need to be developed at the preschool and kindergarten levels. He further advocated that in preschool, oral language skills, alphabet skills, and phonemic awareness be targeted without reservation. Farkas further stated that staffs in both Head Start and preschools overutilize their decision to delay teaching prereading skills, due to their perceptions of the child as being developmentally delayed. He asserted that children between the ages of 3 and 6 can and should learn effective prereading skills to prepare for school. He also pointed out that teachers of these children must have strong skills to teach these children. If professionals who are directly involved with children from a low-SES background are to be effective in reducing the gap or improving the educational skills of children of low-income households, they need to ensure that negative academic conditions are changed through both educational and family support practices that will foster a positive environment for children from a low-SES background. However, according to Farkas, those with the most influence only will be successful if they seriously take heed of the past failures of the publicly funded educational system at all levels.

It is of vital importance that educators utilize appropriate intervention strategies to support at-risk students in making positive changes in their lives. Hall and Hall (2003) specified that to create lasting positive change, at-risk students should work closely with adults who make them feel valued. Educators can use specific strategies to develop

positive and motivating relationships with students who are at risk for failure. A central theme to the gentle intervention approach to building relationships is that educators intercede when a student exhibits behaviors that threaten health, safety, or property by doing what is necessary to protect themselves and other students. Inappropriate behavior can be dealt with later if necessary. This type of intervention neutralizes the situation and allows for the student to maintain self-respect. According to Hall and Hall, the gentle intervention technique consists of the following five essential components: (a) low-profile behavior modification, (b) preservation of dignity, (c) redirection to an appropriate response, (d) praise for the appropriate response, and (e) directing the student to the easiest response at the moment. Most important to this intervention technique is the lack of use of emotionally prejudiced teacher scolding. The relationship-building approach to decreasing challenging behavior in children is part of a new paradigm in the field of education. In this new paradigm, responsibility for behavior is placed on the educator, who is often the only professional in the classroom setting. This approach more often creates opportunities for success with challenging children.

Teacher and student factors in emergent literacy programs. There is a need to provide high-risk children with school programs that build their emergent literacy skills, but it is not always clear just what factors are associated with successful preschool programs. More specifically, there is a need to consider which teacher and student factors promote or inhibit the development of emergent literacy skills in preschool settings, especially among African American students.

With regard to teacher factors, it is worth considering the knowledge and skill levels of the teachers themselves. Bos, Mather, Silver-Pacuilla, and Narr (2000) described a collaborative effort between a university and elementary school to improve

instruction in emergent literacy skills in young children. The collaborative effort was called Project Reading Instructional Methods of Efficacy (RIME). All teachers involved in the collaboration attended a university course that incorporated knowledge and skills related to systematic reading instruction strategies, also known as explicit instructional strategies. The premise of Project RIME involved using explicit instruction, integrating strategies into teaching practice, and adjusting to students' needs and developmental levels. Bos et al. concluded that collaborative efforts definitely contribute to improving poor early literacy skills, and that in order to better support students who are having difficulties with literacy development, the teachers need to be prepared and supported.

In another study, Cobb (2001) explored the effect of an early intervention program with preservice teachers on the reading achievement levels of at-risk children in the primary grades. Cobb's study used research-based activities that supported improving phonological awareness and comprehension skills using manipulatives and puppets. The study brought to light two important issues related to teachers' work with children from diverse cultures. First, children from low-SES backgrounds tend to benefit most from interactions with instructors who understand their backgrounds. Second, there is a need for alternative intervention models to strengthen the literacy development of children at risk. Beyond this, however, Cobb concluded that there is a need for continued research to determine which specific instructional strategies are most helpful for students from diverse backgrounds.

In another exploration of teacher factors, Coplan, Wichmann, Lagace-Seguin, Rachalis, and McVey (1999) examined the impact of preschool instructors' educational levels on the development of their students. According to these researchers, early childhood educators play a central role in the social and cognitive development of

children. In their study, they attempted to evaluate the effectiveness of teacher training on children's performance by analyzing their social and cognitive progress. The findings suggested that student performance on academic and social assessments serves as a good indicator of instructor effectiveness. Beyond this, Coplan et al.'s study also revealed that emergent literacy skill development can be an effective predictor of teacher effectiveness in early childhood education.

Overall, however, despite various studies on how teacher attitudes and performance influence children, how teacher education levels affect children's cognitive and social development is still unclear. Even in classrooms where teachers have adequate training, some children still experience difficulties becoming literate. Al Otaiba and Fuchs (2002) reported that although early literacy interventions help most children, a substantial percentage of children still make little to no improvement when intervention is provided. As such, there is a need to consider what factors are related to those children who are successful or not successful early on. The study of children who are unresponsive to effective treatment is a new subject for researchers, and as such there are numerous challenges associated with the study of this subject matter. Al Otaiba and Fuchs explored the literature to investigate the problem of why some young children are unresponsive to instruction. They found that most of the students who did not respond to early literacy intervention in the studies they examined possessed weak phonological awareness skills. Other deficits identified in some unresponsive children included phonological memory, rapid naming, attention or behavior, and intelligence. Al Otaiba and Fuchs examined the correlation between phonological awareness and treatment unresponsiveness and found that in 70% of the studies inspected, phonological awareness was a clear correlate.

Dale, Mills, Cole, and Jenkins (2004) conducted a longitudinal study of the accuracy of preschool test scores in predicting future cognitive and academic success of children who received special education services in preschool. They found that the students who showed the most academic improvement were male, Caucasian, middle-class children. In addition, they found that the longer non-Caucasian students were involved in special education programs, the less likely they were to make adequate academic gains. These findings suggest that a child's sociocultural and socioeconomic background has a correlation with that child's later academic achievement. Dale et al.'s findings also highlighted the need for academic interventions to ensure that non-Caucasian American children have positive outcomes.

Summary of the Literature

The importance of emergent literacy skill development in the preschool years has been stressed by experts in this field (Clay, 1966; McGee & Richgels, 2003; Miller, 2000; Morrow, 2001). Documented evidence has shown that at-risk preschoolers require a concentrated focus in this area to ensure future academic success, due to their increased probability of developing substandard skills, primarily because of poor literacy environments and poor exposure to print material (Farkas, 2000; National Institute of Child Health and Human Development, 2000; Ontario Ministry of Education, 2003).

With regard to African American preschoolers from poor literacy environments, McGee and Richgels (2003) and Washington (2001) advocated that this group experience direct intervention through a literacy-focused academic program. The argument made in connection with at-risk African American preschoolers is that this group must be taught adequately; regularly exposed to print; and subjected to specific instruction in letter knowledge, phonemic awareness, vocabulary development, and concepts about print

(Adams, 1990; Armbruster et al., 2001; Britto, 2001; Clay, 1966, 1989; Justice & Ezell, 2004; Morrow, 2001).

The literature also revealed that the development of emergent literacy skills can be promoted in various formats in preschool settings. Targeted areas include oral language development, vocabulary development, letter-knowledge skills, phonological awareness, and concepts about print, all of which should be a primary focus for development prior to enrollment in kindergarten (Dodd & Carr, 2003; Farkas, 2000; Justice & Kadaravek, 2002; Justice et al., 2003; Lane et al., 2002). In connection with the need to include specific targeted areas for instruction in preschool programs, Coplan et al. (1999) asserted the need for knowledgeable, skilled teachers, because they play a central role in the development of young children. As such, teacher instructional techniques are needed that demonstrate a strong emphasis on early reading instruction skills.

In order to create substantial change, then, the literature clearly demonstrated that the implementation of effective intervention strategies, paired with good teaching and adequate support systems, is a necessity for at-risk students (Hall & Hall, 2003). In short, there is presently an urgent need for rigorous academic interventions to increase the likelihood of academic success for African American preschoolers (Dale et al., 2004).

Chapter 3: Anticipated Outcomes and Evaluation Instruments

Goal

The goal for this applied dissertation was that African American pre-K children from a low SES background would exhibit desired emergent literacy skills in oral vocabulary, alphabet and letter recognition, phonemic awareness, and concepts about print. More specifically, the goal was to have the at-risk children in the researcher's More at Four work setting exhibit the desired emergent literacy skills.

Anticipated Outcomes

The following four outcomes were projected for this applied dissertation:

1. Of the total number of students in the More at Four pre-K program, 50% or more would display average emergent literacy skill development in language, as evidenced by scores on a formal test administered at the end of the intervention period.

2. Of the total number of students in the pre-K More at Four program, 50% or more would exhibit age-appropriate vocabulary, as evidenced by scores on a formal test administered at the end of the intervention period.

3. Of the total number of students in the pre-K More at Four program, 40% or more would achieve mastery of alphabet knowledge and phonemic-awareness skills by the end of the intervention period, as evidenced by performance documented on informal checklists.

4. Of the total number of students in the pre-K More at Four program, 40% or more would demonstrate an understanding of concepts of print, as evidenced by scores on a formal test administered at the end of the intervention period.

Measurement of Outcomes

Outcome 1. The measurement tool selected in connection with the first anticipated

outcome—average emergent literacy development in language—was the DIAL-3
(Mardel-Czudnowski & Goldenberg, 1998). This test measures federally mandated
developmental domains in young children and is a common tool used to measure
language, motor concepts, self-help development, and social development in the
preschool population.

The writer selected this test because it measures language development and
identifies young children who may be in need of further diagnostic assessment in
language areas. In this applied dissertation, the DIAL-3 was used in pretesting and
posttesting sessions. The findings were used to measure gains made in receptive and
expressive language skills over the course of the intervention period.

Outcome 2. The measurement tool selected in connection with the second
anticipated outcome—age-appropriate vocabulary—was the Peabody Picture Vocabulary
Test–III (PPVT-III; Dunn & Dunn, 1997). This test measures a child's linguistic and
cognitive development, as evidenced by vocabulary acquisition. This instrument was
selected for this applied dissertation because it assesses listening vocabulary of young
children and serves to indicate weaknesses in vocabulary development. The writer used
the PPVT-III in pretesting and posttesting sessions and used the final results to measure
gains made in vocabulary development over the course of the intervention period.

Outcome 3. The third anticipated outcome—mastery of alphabet-knowledge and
phonemic-awareness skills—was measured using informal assessment checklists. An
informal checklist format was selected because the participants' performance on criteria
could be assessed and documented adequately using this method. A checklist could be
designed to determine if goals that had been set were met. A checklist is a form of
authentic assessment and as such can represent and reflect actual learning.

The informal checklists in this applied study addressed both alphabet knowledge (i.e., identifying letters of the alphabet, naming letters of the alphabet, and matching letters with sounds) and phonemic awareness (i.e., identifying beginning and ending sounds in words, blending sounds, and rhyming). The assessment sheets were used in pretest and posttest situations to determine gains made in alphabet-knowledge and phonemic-awareness skills. See Appendix A for a copy of the Alphabet Knowledge Informal Assessment sheets and Appendix B for a copy of the Phonemic Awareness Informal Assessment sheets.

Outcome 4. The fourth anticipated outcome—mastery of concepts about print—was measured by means of the Concepts About Print test (Clay, 2000a). This test measures a child's knowledge about books and print. The test was selected because it is the most widely recognized measurement tool of this sort, and it measures concepts that were being addressed in this applied dissertation (i.e., characteristics of books, print contains message, and directionality in print). Moreover, the test is child and user friendly and provides feedback related to the appropriateness of a child's attention to concepts of print. The test focuses on a total of 24 concepts of print, not all of which were expected to be mastered by the pre-K children in this study. Student performance on all 24 concepts was measured in this study to explore which concepts the children might master by the end of the intervention period. However, only the following six concepts were specifically targeted for mastery: (a) front of book, (b) print contains message, (c) where to start reading, (d) which way to go when reading, (e) bottom of picture, and (f) left page before right. The writer used the Concepts About Print test in pretesting and posttesting sessions and used the results of the final test to measure gains made in the targeted concepts about print over the course of the intervention period.

Mechanism for Recording Unexpected Events

Throughout this applied dissertation, the writer maintained an applied research notebook to record observations, comments, and specific details on all research activities and events as they occurred. Entries reflected such aspects as student attendance and daily problems encountered in the overall intervention program. The teachers in this study also had the opportunity to record their observations or comments on paper to be left in a suggestion box located in the teachers' lounge. Parents also had the opportunity to submit their comments or feedback for the writer in connection with their children's progress or lack of progress throughout the intervention program. A suggestion and comment box for the parents was available at the monthly parent meetings at the center.

Chapter 4: Solution Strategies

A strong foundation in emergent literacy is a key component of future success in reading. However, in the writer's work setting, African American preschoolers from low-SES backgrounds were exhibiting poor emergent literacy skills, and this deficit was placing them at risk for future academic failure. The children's emergent literacy skill deficits were noticeable in oral language, vocabulary, alphabet knowledge, phonemic awareness, and concepts about print. An effective intervention strategy was needed to ensure both an adequate command of critical emergent literacy skills and later reading success.

Discussion and Evaluation of Solutions

The writer researched a variety of topics related to strategies for possible use as solutions to the problem. First, the literature was explored to determine the views of those calling for intervention programs to improve emergent literacy skills, especially among at-risk students such as African American preschoolers from low-SES backgrounds. This portion of the literature review revealed that the introduction of such intervention programs for preschoolers was indeed considered essential to the success of at-risk children and that the nature of such programs must be geared toward the needs of the at-risk children. Next, the literature was reviewed for details related to the content of emergent literacy intervention programs. The review revealed that the content of such programs covers a range of areas, with the most critical areas to target being print awareness (concepts about print), oral language and vocabulary development (inferring and word elaboration skills), alphabet knowledge (letter knowledge and name writing), and phonemic awareness (an embedded-explicit approach paired with phonological awareness curriculum and literacy to enhance play settings). Following this, the literature

was searched for specific instructional strategies related to the use of storybooks to enhance emergent literacy skills. This aspect of the search revealed that storybook strategies fell into the following three categories: (a) shared adult-child storybook reading, (b) interactive storybook reading, and (c) small-group storybook reading. Finally, the literature on change was reviewed to determine what methods facilitate change in school settings. In addition to calling for training for teachers in order to bring about change, educator accountability and the design of instructional activities to meet the needs of students emerged at the core of the change component in the literature. Each of the above areas of the literature search is presented below and discussed in relation to possible solutions in the writer's setting.

The call for emergent literacy intervention programs. According to Speece, Mills, Ritchey, and Hillman (2003), reading problems are magnified when struggling young readers are not identified early in the reading process. Moreover, as these authors pointed out, if early intervention does not occur, reading difficulties often continue. Pullen and Justice (2003) agreed and stressed that support systems and opportunities to improve vital emergent literacy skills in early childhood are key factors in preventing future reading failure. In short, the literature confirmed that early reading intervention is at the core of improving emergent literacy skills in children at risk for reading failure.

Justice and Pullen (2003) emphasized the same point but further stressed that any emergent literacy intervention needs to be properly designed to decrease the chances of later reading failure. They examined the risk factors that cause preschoolers to be candidates for difficulty with developing adequate emergent literacy skills. They found these risk factors included poor oral language skills, parent history of reading difficulty, and environmental factors such as poor oral and written use of language in the home.

Justice, Invernizzi, and Meier (as cited in Justice & Pullen) affirmed that children who are exposed to one or more of these risk factors should be provided with emergent literacy intervention to reduce the chances of future reading failure. Justice and Pullen claimed that the research suggests that the nature of the intervention provided for such children should include the following three teacher-directed strategies: (a) phonological awareness training, (b) literacy-enhanced play settings, and (c) shared adult-child storybook reading.

In addition to emphasizing the need for intervention programs for young children, Justice and Pullen (2003) cited the need for effective intervention principles to be used in these programs. These intervention principles, they suggested, should be evidenced in all emergent literacy activities. Justice and Pullen specified these principles as activities that address the areas of written language and phonological awareness, activities that are supported by evidence-based practices, and activities that are implemented in a natural setting in everyday activities. Furthermore, they stressed the need for these principles to be included effectively in preschool settings as well as school settings.

Additionally, the literature noted that making emergent literacy intervention available to those children who are most vulnerable to future reading difficulty is imperative, because these skills must be developed in a timely manner. The gap between what is and what should be in the practice of applying effective emergent literacy interventions in the early childhood setting should be closed. Additionally, this is necessary to ensure the future reading success of all children, especially those who have been identified as the most vulnerable. Strickland (as cited in Neuman & Dickinson, 2001) discussed African American children in particular and called for a well-designed curriculum to meet their needs.

In connection with this applied dissertation by the researcher, the at-risk children in the writer's More at Four work setting were vulnerable and very much in need of corrective interventions. Because the More at Four program is designed to prepare at-risk preschoolers for school success, it became an ideal environment in which to introduce an intervention program focused on strengthening emergent literacy skills. It was projected that improved emergent literacy skills would help the children become stronger academically and help ensure that they had the opportunity to advance more readily when they entered kindergarten.

The content of emergent literacy intervention programs. The literature revealed that emergent literacy intervention programs differ in content, with a wide range and variety of programs. Nevertheless, a number of common elements were found across many emergent programs, and these emerged as the key components of early intervention programs.

To begin, the literature clearly documented the importance of attending to the development of print awareness skills in preschoolers. Clay (1985, 1989) discussed the notion of print awareness and argued strongly for the need for children to acquire a variety of concepts about print in order to become literate. Included is the development of concepts related to the characteristics of books, letters, words, and directionality in print. To assist young children to acquire such concepts about print, Clay (1985, 1989) argued that activities should be incorporated into naturally occurring routines and activities, and teachers should seize opportunities within their school day to advance emergent literacy skills. These activities can include playing phonology games during whole-group instruction, while encouraging oral interactions through conversation. Pullen and Justice (2003) suggested that print awareness activities can be integrated easily into the

preschool curriculum. During storybook reading activities, for example, adults simply can point to the words as they are reading and ask questions about the story. Adults also can assist preschoolers in developing print-awareness skills by modeling and allowing them to assist in such activities as writing grocery lists, so that these activities will carry over into their play activities at school. These opportunities provide foundational support for improving children's language skills. Given the call to enhance print awareness as a vehicle for improving emergent literacy skills as well as the ease of integrating these strategies into a preschool setting, this option of teaching concepts about print emerged as a viable component of an intervention strategy for the writer's setting.

In addition to improving print-awareness skills in preschoolers, the literature strongly supported addressing oral language and vocabulary skills in intervention programs. Oral language development clearly was identified in the literature as a critical component of emergent literacy skill development. For example, Pullen and Justice (2003) proposed that oral language skills are vital to positive outcomes in future reading achievement and that the preschool years are critical for encouraging optimal development in oral language. Pullen and Justice also held that oral language skill development can be encouraged easily during daily activities with preschoolers. Because oral language skills are correlated with both phonological and print awareness, they are essential skills to develop in early readers.

The development of oral language skills can be accomplished through the use of focused stimulation and storybook reading activities that encourage interactions (Miller, 2000; Morrow, 2001). During such activities, teachers can use a combination of self-talk, parallel talk, repetitions, and expansions of children's statements. In addition, teachers should ask open-ended questions related to stories, while using praise to encourage

student response and participation.

Given the strong research that supports enhancing oral language and vocabulary in at-risk preschoolers, targeting these skills in this writer's setting emerged as another desirable component of the emergent literacy intervention program. Based on the literature, these skills could be enhanced in the writer's school setting in an unobtrusive manner.

It is important for young children to acquire a range of concepts about print and also to develop oral language and vocabulary skills, but the literature also revealed that children at the emergent literacy stage must acquire knowledge about the alphabet system. A number of early literacy experts (Justice & Kaderavek, 2004a; Morrow, 2001; Speece et al., 2003) agreed that letter knowledge is a key early literacy skill and that early intervention in this area is called for with young, at-risk students.

According to Morrow (2001), it is not necessary for children to learn the alphabet prior to learning any whole words, but it is necessary for children to learn the alphabet to become independently fluent readers. As such, instruction in letter awareness must be included in the emergent literacy curriculum. The aim is for young children to become able to name the letters of the alphabet, recognize them in print, and reproduce them in print. Morrow recommended activities such as singing the alphabet song, playing letter bingo, and having alphabet centers with many different forms of alphabet letters that the children then can manipulate in teacher-directed activities.

Due to the importance of improving alphabet knowledge in at-risk preschoolers and the fact that poor alphabet-knowledge skills were evident in the writer's work setting, it was vital to target this skill in the writer's setting. Although the students in the writer's work setting were exposed to alphabet-knowledge skills in the classroom to some degree,

they would benefit from more focused instruction.

Closely following from letter awareness are phonological awareness and phonemic awareness, both of which are closely related key components in emergent literacy programs. Phonological awareness is the ability to think about and recognize differences in speech sounds, such that one could clap out syllables in words or recognize if two words sound the same. Phonemic awareness is a more sophisticated level of phonological awareness. Phonemic awareness is the ability to hear phonemes (the sounds in language) and to detect, for example, if two words start with the same sound. As such, phonemic-awareness skills typically include hearing rhyming words, hearing words with the same initial and final sound, and segmenting words into individual phonemes. Because English is an alphabetic language, in which letters correspond to phonemes, acquiring phonemic awareness is important for literacy development (McGee & Richgels, 2000).

The literature further detailed the benefits for at-risk students who are exposed to phonological- and phonemic-awareness training. For instance, Pullen and Justice (2003) posited that phonological awareness and print awareness are vital to positive outcomes in future reading achievement. They described such activities as focusing on rhyming and counting syllables and as including blending and segmenting components. They also stressed that opportunities to improve vital emergent literacy skills need to be present in everyday classroom settings. They contended that phonological awareness is crucial and that such training activities should be overt and provided daily for at-risk preschoolers.

Evidence-based interventions such as teacher-directed phonological- and phonemic-awareness curricula, as described by Justice and Pullen (2003), are supported by previous research regarding their value when used with young children. These

activities are designed to develop a strong foundation in phonological awareness and are currently in use in some preschool classroom settings. Additionally, such activities are promoted for use in a naturalistic environment, often involving teacher-directed games and activities related to rhyming, phoneme identification, blending, and segmenting phonemes.

Snow, Burns, and Griffin (as cited in Justice & Pullen, 2003) argued that interventions for at-risk children should focus on developing phonological and phonemic awareness along with written language, primarily because these two areas include foundational skills for developing fluent reading. They argued that the development of these skills can be encouraged through the use of an embedded-explicit emergent literacy approach. Although this approach has not been the subject of research, there is strong support for both the embedded and explicit approaches individually. Justice and Kaderavek (2004a) described the embedded-explicit emergent literacy approach as a combination of approaches that ensures that at-risk children have the most advantageous opportunities to develop emergent literacy skills. The model is based on best practices extracted from current research and involves whole-class instruction followed by small-group and one-on-one instruction for children who require extra attention. This intervention utilizes frequent informal assessment to monitor the children's progress in relation to their peers. Conversely, the embedded portion of this instructional model requires collaboration between the literacy specialist and classroom teacher. Justice and Kaderavek (2004b) suggested that the embedded-explicit emergent literacy model be implemented throughout the day with additional support for children as warranted, and that with this support, children who are at risk for reading difficulties should be able to obtain adequate emergent literacy skills, thereby assuring their successful transition from

prereaders to successful readers.

The inclusion of writing along with phonological and phonemic awareness training has been promoted by some experts in the area, because both sets of skills are viewed as essential in terms of learning to use letters to represent sounds. One study by Welsch, Sullivan, and Justice (2003) explored the correlation between preschool children's name-writing representations and their print and phonological awareness. A basic assumption throughout their analysis was that children's name-writing samples are good indicators of their mastery of emergent literacy skills such as alphabet knowledge, print knowledge, word concepts, rhyme awareness, and beginning sound awareness. The participants in Welsch et al.'s study were 3,546 at-risk 4-year-olds in a range of preschool programs. The children were evaluated in the areas of name writing, rhyme awareness, beginning sound awareness, alphabet knowledge, print knowledge, and word concepts. The study resulted in some major findings related to children's name writing and emergent literacy knowledge. Study comparisons indicated that the study participants who were able to write their names appropriately had the highest levels of awareness of rhyme and beginning words, knowledge of uppercase letters, and recognition of the concepts and functions of print. In short, Welsch et al. found that the accuracy of the children's name-writing skills reflected their general knowledge of print and sounds. The results of their study suggested that name-writing activities are indeed necessary and helpful to the development of early literacy.

The literature review confirms the importance of targeting phonological and phonemic awareness in preschool programs in order to build a strong literacy foundation for at-risk preschoolers. Given the need for such training for young children, this intervention strategy emerged as another viable component to be implemented into an

intervention program in the writer's setting. The students in the writer's setting were not participating in a focused program to improve their phonemic-awareness skills; thus, it was projected that they would greatly benefit from exposure in this area.

Storybook reading in emergent literacy programs. It has been argued that an essential component of emergent literacy development is storybook reading (Clay, 1966; Miller, 2000; Morrow, 2001). The benefits are plentiful: Reading to and with children builds concepts of print; develops children's comprehension; expands children's schema; enlarges children's vocabulary; builds an understanding of story grammar; and, perhaps most importantly, helps to develop in children a love of books.

Whereas reading books to young children is recommended from an early age in the home, it is also viewed as a desirable activity in preschool and formal school settings, especially for those children whose at-home literacy environment is poor (Wasik, Bond, & Hindman, 2006). Read aloud strategies fall into three main categories: (a) shared adult-child read aloud, (b) adult-child interactive storybook reading, and (c) small-group storybook reading, all of which can occur either at home or at school. With regard to preschool emergent literacy programs, the use of all three strategies is possible, and all three are recommended for inclusion in early literacy intervention programs.

One key benefit to read aloud relates to the improvement of comprehension skills in preschoolers. This is often promoted as the key purpose of read aloud and is based on the premise that children must be able to understand text that is read to them before they can understand text that they have to read on their own. As such, the aim is to read to children from progressively more difficult text and help them understand what they hear at this level. According to Richards and Anderson (2003), adequate inferring proficiency in young readers is the key to improving vital comprehension skills. They advanced the

notion that in most books developed for children, young readers need to be able to infer information from both pictures and text to be able to understand and enjoy the book; unfortunately, most young readers are not able to infer information without adequate training. Consequently, Richards and Anderson proposed a strategy to improve early readers' inferring skills, called How Do You Know. This strategy is designed to support the young reader in recognizing vital information and articulating conclusions reached during read aloud. Teachers are responsible for determining what inferences should be made from a selected story. Utilizing the How Do You Know strategy requires teachers to give details to students about what they are going to be learning. The teacher then provides an explanation of inferring information from a story and models the strategy for the students during read aloud. Once readers have mastered this skill during read aloud, teachers use expansion strategies for guiding the child to becoming more responsible for identifying opportunities to conclude information from a story.

According to some experts in read-aloud strategies, storybook reading activities are enhanced when adults use interactive or dialogic reading and print-referencing strategies to promote emergent literacy. The effective use of these strategies is said to improve print awareness, alphabet knowledge, and word-concept skills in children. One study by Hargrave and Senechal (2000) examined the effect of passive involvement in book reading compared to interactive storybook reading on the vocabulary development of preschoolers with poor vocabulary skills. The results of Hargrave and Senechal's study revealed that although children with low vocabulary skills acquired new vocabulary from shared-reading episodes, the children in the active participant or dialogic reading conditions made greater gains in vocabulary and language skills. Equally important, Hargrave and Senechal claimed that their findings were consistent with a series of

previous studies that consistently showed "dialogic reading could produce significant positive gains in expressive language for children from low-income homes who attend daycares" (p. 86). Hargrave and Senechal concluded that children in both the regular reading groups and the dialogic reading groups improved their vocabulary, but the benefits were greater for children in the dialogic reading group. Furthermore, the gains in vocabulary were accomplished in groups of one teacher per 8 children and over a short period of 4 weeks. These findings have positive implications for preschool teachers.

Another more recent study by Justice, Meier, and Walpole (2005) also revealed that vocabulary skills in at-risk kindergartners can be enhanced during storybook reading. According to Justice et al. (2005), small-group storybook sessions coupled with adult-led elaboration of words impacts vocabulary development. The participants in this study included 57 kindergarten students aged 5 to 6.5 years, who were all primarily African American students from low-SES backgrounds. After being randomly assigned to a treatment or control group, the students all took pretests and posttests to assess their knowledge of 60 targeted vocabulary words from 10 storybooks. The participants in the treatment group were exposed to 30 targeted, elaborated vocabulary words. In addition, the adult reader provided the meaning of a word in conjunction with the word's being used in a sentence. The results of the study showed that participants in the treatment group made greater gains on elaborated words compared to the control group. These findings suggest that elaboration of vocabulary in storybook reading encourages vocabulary development more than mere exposure to words. Furthermore, these findings suggest that children with low vocabulary knowledge benefit greatly from the use of word elaboration to facilitate learning.

Given the importance of using storybook reading to improve emergent literacy

skills in at-risk preschoolers, it was deemed essential to include storybook reading in the intervention program in this writer's setting. The students already were exposed to storybook reading, but it was projected that they would benefit from a more focused storybook program to improve their vocabulary and oral language skills.

Promoting and facilitating change. Change theory research supports designing a learning environment that fosters success for at-risk students. Patterson (2003) suggested that educators must acknowledge the strict boundaries placed on educators and students, change their traditional methods of thinking, and reinvent schools so that they meet the needs of students. Beyond this, others have suggested that educators need to place self and student agency in the center of the educational process to create a school environment and culture that encourages students of low-income households to identify positively with academic work. Jackson (2003) indicated that somehow a few high-achieving students of low-income households have found support in advanced structured academic settings such as gifted or honors courses, but that the failure to adequately educate students regardless of their economic status remains a major issue in the field of education. According to Jackson,

> Anthropologists, sociologists, and psychologists who have studied this process in depth often conclude that most school failure is socially constructed. Some further argue that school success could in principle be socially constructed as well, if only we could influence enough of the relevant social factors. (p. 581)

Jackson (2003) further asserted that planning for success for students of low-income households has not addressed the school social structure and the outside social forces impacting students. A focus on student agency would ensure attention to outside social forces. Such a focus also would encourage the development of small group instruction and teacher support to encourage students to develop their academic skills.

Jackson described these educational settings as usually being small—a single classroom, program, or school—and as almost always having a strong individual at the center, a dedicated teacher or administrator whose convictions and vision are major factors in success. Jackson called for "identity-sensitive education," which involves a collaboration of various teaching styles and techniques that tend to emerge in the following three basic patterns: (a) the charismatic teacher model, (b) the "together we'll make it" model, and (c) the "small-school, intellectual hothouse model" (p. 583). These types of strategies could be an important component in improving preliteracy skills in African American children from a low--SES background. According to Jackson, recognizing that students from specific minorities tend to have more difficulty identifying with academic work that is essential to their future will facilitate creating academic environments in which such students thrive.

Jerald (2003) explored the idea of how educators can become more effective in their approaches to accountability. Jerald argued that many educators are entrenched in the traditional educational system, which involves viewing the concept of accountability as a fad or becoming involved in educational practices that are currently in vogue. According to Jerald, there are various alternative ways to be productive educators in the present age of accountability, all of which are built on the notion that instructional methods need to be adjusted and change is necessary in at-risk student populations. Jerald asserted that a well-thought-out efficient method of instruction is necessary to produce teacher accountability for student results. Immediately attributable to improved accountability are developing district-wide curriculums, utilizing data from student assessment on a frequent basis, and creating an environment of problem solving to design instructional strategies that are effective for all students.

King and Homan (2003) cited Clay, who advocated for the professional development of classroom teachers to aid them in supporting their students who are experiencing reading difficulties. King and Homan trained 14 primary-grade teachers to provide emergent literacy support lessons for 27 low-performing, first-grade students. The teacher participants in this study were trained extensively on a push-in model for early intervention and then provided daily, 30-minute intervention lessons to the first-grade student participants. The findings of the study clarified that classroom-based intervention is indeed effective in the early childhood classroom. These results are in alignment with Clay's theory (2002) that a push-in classroom-based intervention model can assist at-risk students in achieving average to above-average outcomes. King and Homan's study supported the need for extensive teacher training regarding the use of intervention strategies. Early educators with knowledge of best practices for remediation of at-risk students are crucial to resolving emergent literacy concerns in this population.

As revealed in the literature, a classroom-based intervention program paired with teacher training is beneficial to improving emergent literacy skills. No such emergent intervention program or teacher training program was in place in the writer's setting. Therefore, the use and implementation of these strategies were viable options for this writer's setting. In addition, because no professional development training was in place in this writer's setting, it was crucial to train the teachers in this setting to use effective emergent literacy strategies. It was projected that professional development would be beneficial to both the teachers and students in this writer's setting, and that the professional development training would help ensure that teachers effectively implemented the proposed strategies in the classroom setting.

Description of Selected Solutions

  As a result of the literature review, several ideas emerged. Thus, the following four specific solution strategies were implemented in the writer's preschool setting: (a) a daily read-aloud and shared-reading program, (b) a story-retelling program, (c) an alphabet-knowledge and phonemic-awareness program, and (d) ongoing professional development for teachers.

  Establish an extensive daily read-aloud and shared-reading program. The first solution involved the implementation of a read-aloud and shared-reading program in the preschool setting. The program entailed the researcher and classroom teachers in the More at Four setting reading to the children for a 30-minute session each day during the intervention period. The writer and classroom teachers read from rich literature and engaged the children in a range of activities that extended the experience with the book and built concepts of print. The literature strongly supported the need for read aloud and shared reading with young children. For example, Justice and Pullen (2003) encouraged the use of storybooks in a number of ways to improve print-awareness skills. Furthermore, Pullen and Justice (2003) identified such a program as a vital link to future reading success. Clay (1966, 1989) further supported the decision to use books to build concepts of print skills by linking literacy success with good concepts about print skills. Dickinson and Smith (1994), Beck and McKeown (2001), and Wasik et al. (2006) also encouraged the use of book reading in various ways to enhance literacy skills in children.

  Establish a conversational story-retelling program. The second solution involved the implementation of a conversational story-retelling program that involved teachers as models (in one-on-one and whole-group instruction) to develop students' oral language skills. The program entailed the researcher and classroom teachers in the writer's setting

reading stories to the children and modeling story retelling. The writer and teachers also encouraged the children to retell stories in a one-on-one and whole-group setting for a 15-minute session each day during the intervention period. Justice et al. (2005) linked small-group storybook sessions with vocabulary development. Barone and Morrow (2003) asserted that when children retell stories, they improve both vocabulary and oral communication skills.

Establish an alphabet-knowledge and phonemic-awareness program. The third solution involved the implementation of an alphabet-knowledge and phonemic-awareness program that included the use of a range of name games, a sign-in procedure, and alphabet and phonemic-awareness activities. The writer implemented this program into the daily curriculum in the preschool setting. The writer and classroom teachers conducted a 30-minute alphabet-knowledge and phonemic-awareness session each day during the intervention period. Welsch et al. (2003) indicated a child's name-writing representations are representative of their print and sound knowledge. Morrow (2001) and Speece et al. (2003) expressed the same opinion that the development of letter-sound knowledge skills is essential to emergent literacy skill development. In addition, other experts such as Dodd and Carr (2003) and Strickland (as cited in Neuman & Dickinson, 2001) encouraged training in letter-sound knowledge for low-SES, African American children.

Provide ongoing professional development for teachers. The fourth solution involved ongoing professional development activities for the teachers in the More at Four setting on the use of strategies for literacy development. The professional development occurred both inside and outside the classroom. King and Homan (2003) and Pullen and Justice (2003) advocated adequate teacher training to improve emergent literacy

outcomes in at-risk children. Additionally, Bos et al. (2000) advocated improving the instruction of emergent literacy skills in young children through better teacher training.

In this applied dissertation, the writer implemented the professional development at the beginning of the intervention period, with supplemental materials available for the staff to use at their convenience. The professional development sessions were used to introduce and reinforce research-based strategies for read aloud, story retelling, and phonemic awareness and alphabet knowledge. Four professional development sessions occurred during the 1st week of the intervention period, with all sessions focusing on components of the intervention strategies to be used in the study. During the sessions, the participants received training that highlighted each strategy presented and articles that dealt with each strategy. The first session focused on read-aloud and shared-reading strategies. The second session focused on story-retelling strategies. The third session focused on alphabet-knowledge and phonemic-awareness strategies. The fourth and final session focused on reviewing the three strategies and answering any questions related to the previous sessions. The supplemental materials included a book and article library in the classroom and access to reading electronic mailing lists to provide a supportive environment for the classroom teacher. The writer was also available throughout the intervention period to provide in-class modeling and ongoing professional support.

Report of Action Taken

Program implementation was based on a 3-month timeframe, with the actual implementation occurring over 14 weeks. The 1st week of the study was used for two purposes. First, professional development for the classroom teachers was delivered. All professional development sessions occurred at the preschool after student dismissal and were presented by the writer. This professional development was for the lead teacher and

the two assistant teachers and was held to introduce them to strategies associated with read aloud and shared reading, story retelling, phonemic awareness and alphabet knowledge, and concepts about print. A 1-hour session on each of these topics was held over the first 3 days of the week, and the session on the 4th day was spent reviewing the topics and addressing teachers' understandings of the topics.

The 1st week also was used to carry out pretesting on the 17 students in the pre-K program. This included the administration of the DIAL-3, the PPVT-III, the Concepts About Print test, and the informal early literacy checklists. All test materials then were stored in a secure location and kept for later use in comparing pre- and posttest results.

Beyond the 1st week of the study, the overall format for the implementation period unfolded in a distinct fashion, with the same format occurring each week. This implementation period occurred daily over 12 weeks, and the researcher and the teachers were present for all daily sessions. While the researcher was presenting to the children, the classroom teachers monitored and assisted with keeping the students on task. At other times, the teachers implemented the scheduled lesson activities; this enabled them to informally assess their own strengths and weaknesses related to their ability to teach emergent literacy skills.

The format for each of the 12 weeks followed the same pattern. On the 1st day of the week, a book was introduced and read, first in a read-aloud format by the teacher, and then in a shared-reading format by the teacher and students, all for the purposes of developing specific concepts of print (e.g., cover, title, author, and illustrator) or specific reading strategies appropriate to the book (e.g., predictable story pattern and use of rhyme). This session lasted 30 minutes. Next was a 15-minute story-retelling session, held to enhance students' connections with the book and develop their oral language and

vocabulary skills. In each of these story-retelling sessions, the students were directed to focus on specific story elements such as the setting of the story or the characters in the story, and teacher modeling along with props and worksheets was used to provide needed structure for the students. Finally, another 30-minute session was held on the same day for the purpose of improving alphabet knowledge and phonemic awareness. In each of these sessions, the activities were also based on the book of the week, and a number of motivating and engaging activities were used to enhance the students' awareness of the sound patterns of speech.

This pattern of activities was repeated on each of the following days of the week. The same book that was introduced on Monday was revisited Tuesday through Friday of that week, with read-aloud, shared-reading, and alphabet sessions following. Each day built on the former day and focused on new concepts and skills.

The books used each week throughout the 12 weeks of the implementation were selected specifically to meet the following criteria: They presented a range of concepts and ideas, had visual appeal, contained predictable story patterns and rhyming patterns, and presented opportunities for expanded language and follow-up work through the use of activities. The strategies selected for use throughout the intervention period were varied. The read-aloud and shared-reading activities focused on building oral language and vocabulary and on having students use finger pointing to enhance print awareness skills and concepts of print. Some skill lessons focused on alphabet-awareness activities and included a range of name-writing and letter-recognition activities. In other skill lessons, the focus was on phonemic awareness by means of games and activities that targeted rhyming, identifying phonemes, and blending and segmenting phonemes. The specific book used each week and the specific focus for the read-aloud, story-retelling,

and phonemic-awareness and alphabet-knowledge lessons each day are contained in

Appendix C.

Finally, in Week 14, the last week of the study, the participants took posttests.

The researcher administered posttests to the participants using the DIAL-3, the PPVT-III,

the Concepts About Print test, and the informal checklists of skills created by the writer.

All testing occurred in an empty classroom in the center. The data collected during this

final week were analyzed to determine the progress made by the students in these areas

over the intervention period.

Chapter 5: Results

Problem Addressed

The problem addressed in this applied dissertation was that African American pre-K children from a low-SES background did not exhibit desired emergent literacy skills. More specifically, the problem was that the African American preschool students in the More at Four program in the researcher's work setting were not exhibiting desired emergent literacy skills in the areas of oral vocabulary, alphabet and letter recognition, phonemic awareness, and concepts about print.

Goal

The goal for this applied dissertation was to have low-SES, African American, pre-K children exhibit desired emergent literacy skills in vocabulary, alphabet and letter recognition, phonemic awareness, and concepts about print. Specifically, the writer set out to have the group of 17 at-risk students in her pre-K More at Four work setting improve their literacy skills in the targeted areas.

Solution Strategies Employed

The writer researched the literature and selected the following four most promising solution strategies to achieve the stated goal:

1. Establish a daily read-aloud and shared-reading program (Beck & McKeown, 2001; Clay, 1966, 1989; Dickinson & Smith, 1994; Justice & Pullen, 2003; Pullen & Justice, 2003; Wasik et al., 2006). It was anticipated that such a program would improve vocabulary and oral language skills in addition to building concepts of print.

2. Establish a conversational story-retelling program (Barone & Morrow, 2003; Hargrave & Senechal, 2000; Justice et al., 2005). Story retelling was anticipated to improve vocabulary and oral communication skills.

3. Provide a program in alphabet knowledge and phonemic awareness (Dodd & Carr, 2003; Morrow, 2001; Speece et al., 2003; Welsch et al., 2003). An instructional focus on letters and sounds was anticipated to improve print and letter-sound knowledge.

4. Provide professional development for teachers in the preschool setting (Bos et al., 2000; King & Homan, 2003; Pullen & Justice, 2003). Professional development would serve to improve the classroom teachers' ability to assist students in developing emergent literacy skills in oral vocabulary, oral language, alphabet and letter-recognition skills, phonemic-awareness skills, and concepts about books and print.

As the speech and educational therapist involved with the More at Four program, the writer was able to take a leadership role in the implementation of the solution strategies. The writer designed the read-aloud and shared-reading, story-retelling, and alphabet and phonemic-awareness programs and implemented these with the assistance of the program teacher and teaching assistants. The writer also delivered the professional development sessions to the teachers to ensure that they had background information and training related to the strategies in use in this intervention program. In addition, the writer was available to answer questions from both parents and teachers related to the development of emergent literacy skills.

Specific Outcomes Projected

The following four outcomes were projected for this applied dissertation:

1. Of the total number of students in the More at Four program, 50% or more would display average emergent literacy skill development in language, as evidenced by scores on the DIAL-3 administered at the end of the intervention period.

2. Of the total number of students in the More at Four program, 50% or more would exhibit age-appropriate vocabulary, as evidenced by scores on the PPVT-III

administered at the end of the intervention period.

   3. Of the total number of students in the More at Four program, 40% or more would achieve mastery of alphabet-knowledge and phonemic-awareness skills by the end of the intervention period, as evidenced by performance documented on informal checklists.

   4. Of the total number of students in the More at Four program, 40% or more would demonstrate an understanding of concepts of print, as evidenced by scores on the Concepts About Print test administered at the end of the intervention period.

Participant Group

   The target group in this dissertation consisted of 17 students at the beginning of the study, but that number decreased to 16 during the intervention period. The student who exited from the study took part in the majority of the intervention program, but then moved to another state before taking the posttest. Demographics of the final target group are the same as those of the original group, except for the removal of the female, Caucasian student. This left a target group of 16 students, with 14 African American, 1 Caucasian, and 1 Hispanic. The gender was evenly split between boys and girls.

Results for Outcome 1

   The first projected outcome was that 50% or more of the students in the participant group would display average emergent skill development in language at the end of the intervention program. This translates into 8 or more students from the group achieving at least an average score in the area of language development as measured by the DIAL-3.

   This first outcome was met. Success was measured by readministering the DIAL-3 at the end of the intervention period and comparing the posttest data to the pretest data.

Pretest and posttest frequency data for the group of 16 students on the DIAL-3 are shown in Tables 1 and 2. The pretest and posttest performance scores are presented in terms of standard scores, such that the first column in each of these tables lists the scores achieved by the students, and the second column lists the number of students who obtained each of these scores. According to the standards on the DIAL-3, students performing at an average level for a pre-K child would achieve a standard score of 100 or higher. The highest score that can be achieved is 135.

As revealed in Table 1, only 5 of the 16 participants achieved the standard score of 100 or above on the pretest, revealing that the majority of students in the group displayed below-average receptive and expressive language skills at the beginning of the study. The data in Table 2, which presents the results of the posttest, revealed that 15 of the 16 students achieved standard scores of 100 or above, thus displaying average emergent literacy skills at the end of the study. Student performance clearly improved from pretest to posttest.

The data from the pretest and posttests on the DIAL-3 were explored further for overall performance patterns. Additional descriptive data presented in Table 3 revealed that pretest scores ranged between standard scores of 65 and 109, with a mean of 91.50 and a standard deviation of 13.155, whereas posttest scores ranged between standard scores of 79 and 135, with a mean of 116.19 and a standard deviation of 14.792. On the pretest, the average score was 91.50, which is well below the desired score of 100; on the posttest, the average score was 116.19, well above the desired score of 100. This indicates that the participant group made significant progress; 15 of the 16 final study participants achieved above the desired standard score of 100 at the end of the intervention program.

Table 1

Pretest Language Scores on the Developmental Indicators for the Assessment of Learning

Standard score	Frequency	Percent
65	1	6.3
69	1	6.3
72	1	6.3
87	1	6.3
88	2	12.5
90	1	6.3
94	1	6.3
95	1	6.3
97	2	12.6
100	1	6.3
102	1	6.3
105	1	6.3
106	1	6.3
109	1	6.3
Total	16	100.0

To determine the significance of these posttest scores on the DIAL-3, a paired-measures *t* test was used. The results are presented in Table 4. The Bonferroni correction was applied to the significance level, making the significance test stricter to account for the fact that the more tests performed, the greater the chance of obtaining a significant result by chance. The $p < .05$ criterion was divided by 8 to obtain a significance criterion of .006. As Table 4 reveals, the *t* test was significant, $t(15) = -6.18$, $p < .001$. Pretest and

posttest scores differed; the posttest scores were significantly greater than the pretest scores.

Table 2

Posttest Language Scores on the Developmental Indicators for the Assessment of Learning

Standard score	Frequency	Percent
79	1	6.3
102	1	6.3
106	1	6.3
107	1	6.3
108	1	6.3
110	2	12.5
112	1	6.3
121	2	12.5
126	1	6.3
128	2	12.5
131	1	6.3
135	2	12.5

Results for Outcome 2

The second projected outcome was that 50% or more of the total number of students in the study would exhibit age-appropriate oral language vocabulary, as measured on the PPVT-III administered at the end of the intervention. This outcome was met.

Success was measured by readministering the PPVT-III at the end of the

intervention period and comparing the posttest data to the pretest data. Tables 5 and 6

reveal these pretest and posttest scores. According to the PPVT-III standards, the highest

score that can be achieved is 160, and young children performing at an average level on

this test would achieve a standard score at or over 100.

Table 3

Standard Language Scores on the Developmental Indicators for the Assessment of Learning

Test	*N*	Minimum	Maximum	Mean	*SD*
Pretest	16	65	109	91.50	13.155
Posttest	16	79	135	116.19	14.792

Table 4

Paired-Samples Test on Language Scores From the Developmental Indicators for the Assessment of Learning Pretest and Posttest

M^a	SD^a	SEM^a	99% Confidence interval[a]	*t*	*df*
-24.69	15.99	4.00	-33.21 to -16.17	-6.18*	15

[a]Paired differences
p < .001

The pretest data, as revealed in Table 5, showed that only 4 of the study

participants displayed age-appropriate vocabulary and language scores on the PPVT-III at

the beginning of the study. An examination of posttest data, as presented in Table 6,

showed that 8 of the 16 students (50%) displayed age-appropriate vocabulary and

language scores. As revealed in Tables 5 and 6, test scores on the pretest ranged between

61 and 109, whereas posttest scores ranged between 72 and 114, indicating that

performance improved across the whole group.

Table 5

Pretest Scores on the Peabody Picture Vocabulary Test–III

Standard score	Frequency	Percent
61	1	6.3
69	1	6.3
71	1	6.3
84	1	6.3
90	2	12.5
91	1	6.3
92	1	6.3
93	1	6.3
98	2	12.5
99	1	6.3
100	1	6.3
101	1	6.3
108	1	6.3
109	1	6.3
Total	16	100.0

Further analysis of these pretest and posttest data from the PPVT-III was conducted, and the findings are presented in Tables 7 and 8. Table 7 reveals that the pretest mean score was 90.88, with a standard deviation of 13.652, whereas the posttest mean was 96.50, with a standard deviation of 11.972.

Table 8 reveals the results of a paired-measures *t* test to determine whether these pretest and posttest scores from the PPVT-3 test differed significantly. Again, the

Bonferroni correction was applied to the significance level to make the significance test stricter to account for the fact that the more tests performed, the greater the chance of obtaining a significant result by chance. The $p < .05$ criterion was divided by 8 to obtain a significance criterion of .006. The t test was significant, $t(15) = -3.367$, $p < .004$. As shown in Table 8, pretest and posttest scores differed, and the posttest scores were significantly greater than posttest scores.

Table 6

Posttest Scores on the Peabody Picture Vocabulary Test–III

Standard score	Frequency	Percent
72	1	6.3
74	1	6.3
86	1	6.3
88	1	6.3
92	1	6.3
93	1	6.3
95	1	6.3
98	1	6.3
101	2	12.5
103	1	6.3
104	1	6.3
106	1	6.3
108	1	6.3
109	1	6.3
114	1	6.3

Table 7

Descriptive Statistics From the Peabody Picture Vocabulary Test–III

Test	*N*	Minimum	Maximum	Mean	*SD*
Pretest	16	61	109	90.88	13.652
Posttest	16	72	114	96.50	11.972

Table 8

Paired-Samples Test on Pretest and Posttest Language Scores From the Peabody Picture Vocabulary Test–III

M^a	SD^a	SEM^a	99% Confidence interval[a]	*t*	*df*
-5.63	6.68	1.76	-10.55 to -.70	-3.37*	15

[a]Paired differences
*$p < .004$

     Given that young girls are often noted for developing vocabulary at an earlier age and at a faster pace than young boys, further analysis of the PPVT-III vocabulary scores among this group of preschoolers seemed warranted to determine if performance on this test varied according to gender. To accomplish this analysis, a new variable was created: the PPVT-III difference score (PPVT-DIF). This variable represented a student's PPVT-III posttest score minus his or her pretest score. Table 9 shows frequencies for PPVT-DIF scores. A negative PPVT-DIF means that the student scored lower on the posttest than on the pretest. As Table 9 reveals, 4 students obtained a posttest score that was the same or lower than their pretest, and the remaining 12 students scored higher on the posttest than on the pretest.

     Table 10 breaks down the PPVT-DIF scores by gender. The table reveals that the 8 girls achieved a higher mean PPVT-DIF than the 8 boys, with mean scores of 6.25 for

the girls and 5.00 for the boys. This means that, on average, the girls' vocabulary scores

did indeed improve more than the boys' scores.

Table 9

Peabody Picture Vocabulary Test–III Difference Scores

Difference score	Frequency	Percent
-5.00	1	6.3
-4.00	1	6.3
-1.00	1	6.3
0.00	1	6.3
2.00	1	6.3
3.00	2	12.5
4.00	1	6.3
5.00	1	6.3
6.00	1	6.3
8.00	1	6.3
11.00	1	6.3
13.00	1	6.3
14.00	2	12.5
17.00	1	6.3

Table 11 presents data from the paired-measures t test used to determine whether

the pretest and posttest gender scores on the PPVT-3 differed significantly. Again, the

Bonferroni correction was applied to make the test stricter. The $p < .05$ criterion was

divided by 8 to obtain a significance criterion of .006. Levene's test for equality of

variances resulted in a Fisher's F ratio of 1.52 and a significance value of .238. As

revealed in Table 11, the *t* test was not significant, $t(14) = .363$, $p = .722$). Therefore, it

can be concluded that boys and girls did not differ significantly in the amount of

improvement on the PPVT-III. However, it should be noted that this result might be

falsely negative due to the small sample size.

Table 10

Descriptive Statistics for Peabody Picture Vocabulary Test–III Difference Scores by Gender

Gender	*N*	Minimum difference	Maximum difference	Mean difference	*SD*
Female	8	-4	14	6.25	5.92211
Male	8	-5	17	5.00	2.73208

Table 11

Independent-Samples T Test for Equality of Means

Mean difference	*SE* difference	95% Confidence interval[a]	*t*	*df*
1.25	3.44	6.13 – 8.63	0.363	14
		6.18 – 8.68[a]		13.11[a]

Note. Values reported are the same for both the equal variances assumed and equal variances not assumed cases, unless otherwise indicated.
[a]Equal variances not assumed

Results for Outcome 3

The third projected outcome was that 40% or more of the total number of students

in the pre-K More at Four program would exhibit age-appropriate alphabet-knowledge

and phonemic-awareness skills, as evidenced by their performance on informal checklists

administered at the end of the intervention. Findings related to this outcome are presented

here in four parts: (a) letter recognition, (b) letter naming, (c) letter-sound knowledge,

and (d) phonemic awareness. The projected outcome was met in the areas of letter recognition and letter naming but not in the areas of letter-sound knowledge and phonemic awareness.

  Letter recognition. In the area of letter recognition, pretest and posttest performance scores are presented in Tables 12 and 13. On this informal measure, the students were required to point to letters as they were read aloud. Mastery of this skill was evidenced by a raw score of 26. The pretest data in Table 12 showed that 4 of the 16 participants displayed mastery of alphabet knowledge at the beginning of the study by identifying all 26 letters of the alphabet. The postintervention data shown in Table 13 showed that at the end of the study, 9 of the 16 students could recognize correctly all alphabet letters.

  Table 14 reveals that the pretest scores on the letter-recognition test ranged between 0 and 26 (the entire range of possible scores), with a mean of 14.75 and a standard deviation of 11.006, whereas the posttest scores ranged between 6 and 26, with a mean of 20.06 and a standard deviation of 8.054. Table 15 reveals the findings from a paired-measures *t* test used to test whether pretest and posttest scores on the informal checklist for letter recognition differed significantly. Eight *t* tests were performed to test all the research questions, and four were performed for Outcome 3 alone; therefore, the Bonferroni correction was applied to the significance level. The Bonferroni correction makes the significance test stricter to account for the fact that the more tests that are performed, the greater the chance of obtaining a significant result by chance. The $p < .05$ criterion was divided by 8 to obtain a significance criterion of .006. Findings from the paired *t* test revealed that the *t* test was significant, $t(15) = -3.334$, $p < .005$, and that the posttest scores were significantly greater than the pretest scores. This was true even

Table 12

Pretest Raw Scores on Letter-Recognition Checklist

Raw score	Frequency	Percent
0	2	12.5
1	1	6.3
2	2	12.5
7	1	6.3
12	1	6.3
17	1	6.3
18	1	6.3
23	1	6.3
25	2	12.5
26	4	25.0

Table 13

Posttest Raw Scores on Letter-Recognition Checklist

Raw score	Frequency	Percent
6	1	6.3
7	1	6.3
8	1	6.3
10	1	6.3
14	1	6.3
20	1	6.3
22	1	6.3
26	9	56.3

though 25% of the students (4 of 16) scored the maximum score on the pretest, thus not having any room to improve.

Table 14

Descriptive Statistics on Letter-Recognition Performance

Test	N	Minimum	Maximum	Mean	*SD*
Pretest	16	0	26	14.75	11.006
Posttest	16	6	26	20.06	8.054

Table 15

Paired-Samples Test on Letter Recognition, Pretest and Posttest

M^a	SD^a	SEM^a	99% Confidence interval[a]	t	df
-5.31	6.37	1.59	-10.01 to -.62	-3.33*	15

[a]Paired differences
*$p < .001$

Letter naming. In the area of letter naming, pretest and posttest performance was measured to determine the students' ability to point to and say the names of letters of the alphabet. Mastery of this skill was evidenced by a score of 26. The students' pretest and posttest performance in letter naming is presented in Tables 16 and 17.

The pretest data in Table 16 showed that 2 of the 16 participants displayed mastery of alphabet knowledge at the beginning of the study by correctly naming all the letters of the alphabet. An examination of posttest data showed that 9 of the final 16 students displayed mastery of alphabet knowledge by naming all the 26 letters correctly. These data revealed that although only 2 students (12.5%) attained the maximum score on the pretest, 9 students (over the desired 40%) attained mastery on the posttest.

Descriptive statistics on the performance in letter naming are presented in Table

18. These data revealed that on the pretest, scores ranged from 0 to 26 (the entire range of possible scores), with a mean of 14.06 and a standard deviation of 9.801, and posttest scores ranged from 5 to 26, with a mean of 20.06 and a standard deviation of 8.161.

Table 16

Pretest Raw Scores in Letter Naming

Raw score	Frequency	Percent
0	2	12.5
1	1	6.3
2	1	6.3
5	1	6.3
9	1	6.3
15	2	12.5
16	1	6.3
20	2	12.5
22	1	6.3
24	2	12.5
26	2	12.5

Results from a paired-measures *t* test to determine whether these pretest and posttest scores on letter naming were significant are presented in Table 19. The Bonferroni correction also was applied to the significance level in this test performance, with the $p < .05$ criterion divided by 8 to obtain a significance criterion of .006. The *t* test was significant, $t(15) = -4.371$, $p < .001$, revealing that the posttest scores differed significantly from the pretest scores.

Letter-sound knowledge. Performance in the area of letter-sound knowledge is

presented in Tables 20 and 21. In this measure, the students were required to point to the

letter that corresponded to the sound at the beginning of words that were read by the

examiner. Mastery was evidenced by a raw score of 26.

Table 17

Posttest Raw Scores in Letter Naming

Raw score	Frequency	Percent
5	1	6.3
7	1	6.3
8	1	6.3
11	1	6.3
14	1	6.3
18	1	6.3
24	1	6.3
26	9	56.3

Table 18

Letter Naming, Descriptive Statistics

Test	N	Minimum	Maximum	Mean	SD
Pretest	16	0	26	14.06	9.801
Posttest	16	5	26	20.06	8.161

The pretest scores for letter-sound knowledge, as revealed in Table 20, showed

that at the beginning of the study, only 1 of the 16 participants displayed mastery of

alphabet knowledge, as evidenced by performance on the informal checklist measuring

letter-sound knowledge. An examination of posttest data, as shown in Table 21, showed

that only 2 of the 16 students displayed mastery on the checklist.

Table 19

Paired-Samples Test on Performance in Letter Naming

M^a	SD^a	SEM^a	99% Confidence interval[a]	t	df
-6.00	5.07	1.27	-9.74 to –2.26	-4.73*	15

[a]Paired differences
*$p < .001$

Table 20

Pretest Raw Scores in Letter-Sound Knowledge

Raw score	Frequency	Percent
0	2	12.5
1	3	18.8
2	3	18.8
3	1	6.3
4	1	6.3
5	1	6.3
12	1	6.3
16	2	12.5
20	1	6.3
26	1	6.3

As revealed in Table 21, the pretest scores on letter-sound knowledge ranged between 0 and 26 (the entire range of possible scores), and the posttest scores ranged between 3 and 26. As revealed in Table 22, the mean on this pretest was 6.94, with a standard deviation of 8.274, whereas the mean score on this posttest was 13.50, with a

standard deviation of 8.748.

Table 21

Posttest Raw Scores in Letter-Sound Knowledge

Raw score	Frequency	Percent
3	3	18.8
4	1	6.3
5	1	6.3
7	1	6.3
8	1	6.3
14	1	6.3
15	1	6.3
18	1	6.3
19	1	6.3
20	2	12.5
25	1	6.3
26	2	12.5

A paired-measures *t* test used to test whether the pretest and posttest scores on the letter-sound knowledge component differed significantly; results are presented in Table 23. With the Bonferroni correction applied to make the significance test stricter, the $p <$ .05 criterion was divided by 8 to obtain a significance criterion of .006. As revealed in Table 23, the *t* test was significant, $t(15) = -4.137$, $p < .001$. The pretest and posttest scores differed, with the posttest scores being significantly higher than the pretest scores. Despite this significance, the projected outcome for performance in this area was not met, in that less than 40% of the group could correctly match beginning sounds in words with

the corresponding letter at the end of the intervention period.

Table 22

Descriptive Statistics on Performance in Letter-Sound Knowledge

Test	*N*	Minimum	Maximum	Mean	*SD*
Pretest	16	0	26	6.94	8.274
Posttest	16	3	26	13.50	8.748

Table 23

Paired-Samples Test on Performance in Letter-Sound Knowledge

M[a]	*SD*[a]	*SEM*[a]	99% Confidence interval[a]	*t*	*df*
-6.56	6.35	1.59	-11.24 to –1.89	-4.14*	15

[a]Paired differences
*p < .001

Phonemic awareness. In the area of phonemic awareness, pre- and

postintervention performance also was measured in the group of 16 students. Tables 24

and 25 present the pretest and posttest frequency data for performance in the area of

phonemic awareness. On this task, the students were required to identify beginning

sounds in words, identify ending sounds in words, blend sounds to make words, and

identify rhyming words. For the task of identifying beginning sounds in words, the

students were presented with five words and required to tell the researcher the beginning

sound of each word. For the task of identifying ending sounds in words, the students were

presented with five words and required to tell the ending sound of each word. For the

blending task, the students were presented with five words in which the sounds were

elongated, and they were required to put the sounds together to make a word. Finally, for

the task of identifying rhyming words, the students were presented with five pairs of

words and asked to say "yes" if they rhymed and "no" if they did not. Mastery in this area was a score of 20.

The pretest scores for phonemic awareness, as revealed in Table 24, showed that at the beginning of the study, no participants displayed mastery of phonemic awareness, as evidenced by performance on the informal checklist measuring phonemic awareness. An examination of posttest data in Table 25 showed that no students displayed mastery of phonemic awareness. Nevertheless, performance in phonemic awareness did improve from pretest to posttest; scores were considerably higher overall on the posttest.

Table 24

Pretest Raw Scores on Phonemic-Awareness Checklist

Raw score	Frequency	Percent
1	1	6.3
2	3	18.8
3	4	25.0
5	3	18.8
6	2	12.5
7	2	12.5
8	1	6.3

Table 26 reveals that on the phonemic awareness pretest, test scores ranged between 1 and 8, with a mean of 4.25 and a standard deviation of 2.145, and that the posttest scores ranged between 4 and 14, with a mean of 10.00 and a standard deviation of 3.183. A paired-measures *t* test was used to test whether pretest and posttest scores differed significantly; results are presented in Table 27. With the Bonferroni correction

applied to the significance level, the *p* < .05 criterion was divided by 8 to obtain a

significance criterion of .006. As revealed in Table 27, the *t* test was significant, *t*(15) =

-7.556, *p* < .001. Pretest and posttest scores differed, and the posttest scores were

significantly greater than pretest scores. However, the projected outcome was not met, in

that less than 40% of the group at the end of the study who could perform all the tasks—

identify beginning and ending sounds in words, blend sounds to make words, and identify

rhyming words.

Table 25

Posttest Raw Scores on Phonemic-Awareness Checklist

Raw score	Frequency	Percent
4	1	6.3
6	2	12.5
7	1	6.3
8	2	12.5
9	1	6.3
10	1	6.3
12	4	25.0
13	2	12.5
14	2	12.5

Results for Outcome 4

The fourth projected outcome was that 40% or more of the total number of pre-K

More at Four students in the study would exhibit age-appropriate concepts of print, as

evidenced by their performance on the Concepts about Print test administered at the end

of the intervention period. This outcome was met.

Table 26

Descriptive Statistics on Performance in Phonemic Awareness

Test	*N*	Minimum	Maximum	Mean	*SD*
Pretest	16	1	8	4.25	2.145
Posttest	16	4	14	10.00	3.183

Table 27

Paired-Samples Test on Phonemic Awareness

M^a	SD^a	SEM^a	99% Confidence interval[a]	*t*	*df*
-5.75	3.04	.76	-7.99 to –3.51	-7.56*	15

[a]Paired differences
*p < .001

Success was measured by readministering the Concepts About Print test at the end

of the intervention period and comparing the posttest data to the pretest data. This test

requires students to identify 24 concepts of print, such as directionality, where to start

reading, or the meaning of certain punctuation marks. However, mastery of all 24

concepts was not the targeted outcome in this study. According to Clay (2000a, 2000b),

children do not learn the 24 concepts in any specific order, and it is not to be expected

that very young children acquire these concepts to the degree that they can verbalize or

demonstrate their understanding. Clay (2000a, 2000b) did not specify, then, that certain

concepts should be mastered by pre-K children at the age of 4. Clay (2000a, 2000b) did

claim, however, that by the age of 5, children should be expected to have mastered one

concept (Concept 2: print contains a message), and that all the other concepts can be

expected to be mastered once the children have reached the age of 5 years 6 months.

However, other experts in early literacy have noted that children learn concepts about

books and print at various rates and that it is best to consider progress and mastery as occurring across age groups. McGee and Richgels (2000) identified the 3–5 age group as the novice level, and they held that children at this level can indeed gain a range of concepts about books and written language, several of which are the same or similar concepts as those in Clay's list. None of this group had reached Clay's target age of 5 years and 6 months, but these children were in the novice level of 3–5 identified by McGee and Richgels (2000).

For the purpose of measuring success in this applied dissertation, then, the following six concepts were identified as the target areas for the group of children in this study: (a) front of the book, (b) print contains message, (c) where to start reading, (d) which way to go when reading, (e) bottom of the picture, and (f) left page before right. All the concepts on Clay's list were measured in a pre- and posttest format, but mastery was measured only in relation to the six targeted concepts. The pretest and posttest frequency data in relation to all of the 24 concepts of print are presented in Table 28.

As Table 28 reveals, at the beginning of the study, of the concepts that were targeted, 100% of the students could identify the front of a book, 68.75% could indicate that print contains a message, 25.00% knew where to start reading on a page, 6.25% knew which way to go when reading, 43.75% knew how to find the bottom of a picture, and 31.25% knew that the left page is read before the right page.
At the end of the study, of the concepts that were targeted, 100% of the students could identify the front of a book, 93.75% could indicate that print contains a message, 93.75% knew where to start reading on a page, 50.00% knew which way to go when reading, 43.75% knew how to find the bottom of a picture, and 68.75% knew that the left page is read before the right page. This confirms that the target of 40% or more of the students

Table 28

Pretest and Posttest Frequency Data on Concepts About Print Test

Concept of print	Pretest frequency	Posttest frequency
1. Front of book [a]	16	16
2. Print contains message [a]	11	15
3. Where to start [a]	4	15
4. Which way to go [a]	1	8
5. Return sweep to left	2	2
6. Word by word matching	2	4
7. First and last concept	3	4
8. Bottom of picture [a]	7	7
9. Begins "I", bottom line top, OR turns book	1	6
10. Line order altered	0	0
11. Left page before right [a]	5	11
12. One change in word order	0	0
13. One change in letter order	0	0
14. One change in letter order	0	0
15. Meaning of a question mark	3	9
16. Meaning of a full stop (period)	1	9
17. Meaning of a comma	0	3
18. Meaning of quotation marks	0	7
19. Locate m i (Moon)	5	5
20. Reversible words was, no	0	5
21. One letter: two letters	4	14
22. One word: two words	1	9
23. First and last letter of word	3	3
24. Capital letter	0	0

[a] Concepts targeted in this study

did achieve the goal of acquiring the six specified concepts of print.

Beyond this, however, Table 28 also reveals that 40% or more of the students were successful in acquiring additional concepts of print. Of the concepts that were not targeted, considerable growth occurred by the end of the intervention period. Prior to intervention, 18.75% knew the meaning of a question mark, compared to 56.25% postintervention. At the beginning of the intervention period, only 6.25% knew the meaning of a full stop (period), compared to 56.25% postintervention. No students preintervention knew the meaning of quotation marks, compared to 43.75% postintervention. Preintervention, 25.00% could identify one letter and two letters, compared to 87.50% postintervention. Only 6.25% could identify one word and two words at the beginning of the study, compared to 56.25% postintervention. Clearly, the students achieved beyond the expected outcome in this area.

Discussion

Results from this applied dissertation utilizing an extensive, daily, read-aloud and shared-reading program; a conversational story-retelling program; an alphabet-knowledge and phonemic awareness program; and professional development for teachers demonstrated that the intervention program was successful. The 16 pre-K students in the program as well as the one teacher and two teaching assistants all participated willingly and enthusiastically in the intervention activities, and the students made distinct gains in their emergent literacy skill levels. The writer used a single-group pretest and posttest design in this applied dissertation intervention, and the results revealed clear improvement in the emergent literacy skills of the study participants. In addition, statistical analyses of the pretest and posttest data using paired-samples *t* tests verified that significant improvement occurred from pretest to posttest with respect to the majority

of the study activities and tests.

Several conclusions may be reached from the results of this applied dissertation intervention. These are described in the following discussion of the projected outcomes as well as a number of unexpected outcomes achieved from pretesting to posttesting.

Conclusion 1. The first outcome that was met was that 50% or more of the study participants displayed average emergent literacy skill development in language at the end of the intervention period, as measured by the DIAL-3 language test. These outcome data were presented in Tables 1–4. The writer, center director, and teachers participating in the study were pleased with the number of students who demonstrated postintervention achievement at expected levels (scores of 100 or more). Fifteen out of the 16 students in the group were able to achieve this outcome, leading to the conclusion that language skills of young, at-risk students can indeed be positively impacted through the use of a structured program including read aloud, shared reading, and conversational story retelling. This finding points clearly to the value of implementing such programs to improve the developmental language levels of at-risk preschoolers. This outcome also confirms findings from previous literature regarding the benefits of read-aloud, shared-reading, and story-retelling strategies to improve the emergent literacy skills of young children (Barone & Morrow, 2003; Clay, 1989; Hargrave & Senechal, 2000; Justice & Kaderavek, 2002; Justice et al., 2005; McGee & Richgels, 2000; Wasik et al., 2006).

However, the data on the students' performance on the DIAL-3 revealed a pattern in the students' development. Those students whose scores on the pretest were below or at the targeted standard score of 100 improved their scores considerably, whereas the performance of students whose scores on the pretest were above 100 remained almost unchanged on the posttest. Table 29 presents the pre- and posttest scores for individuals,

revealing that 4 students (Students 5, 8, 12, and 13) did not perform much better on the posttest than the pretest. This finding suggests that those students who are initially lacking the most in language skills benefit the most from intervention.

Conclusion 2. The second outcome that was met was that 50% of the study participants did exhibit age-appropriate oral vocabulary scores at the end of the intervention program, as evidenced by scores on the PPVT-III. The intervention outcome data shown in Tables 5–11 revealed that vocabulary improvement did indeed occur across the group and that 8 of the 16 students were able to achieve age-appropriate expectations by scoring a standard score of 100 or above on the PPVT-III. When examined by gender, the girls had a higher mean score than the boys, which means the girls' scores improved more than the boys' scores. However, the *t* test indicated that the scores of the boys and girls did not differ significantly in the amount of improvement on the PPVT-III. In addition, the small sample size might have contributed to falsely negative results.

An implication of Outcome 2 is that student participation in vocabulary enhancement activities related to read aloud and story retelling can improve vocabulary skills in at-risk preschoolers. This confirms findings from other literature (Dickinson & Smith, 1994; Hargrave & Senechal, 2000; Justice et al., 2005). However, the number of students who achieved age-appropriate scores was only 8 out of the 16 students, which suggests that close attention should be paid to findings from other literature in reference to focusing specific attention on African American students from low-SES backgrounds (Adams, 1990; Britto, 2001; Farkas, 2000; Washington, 2001). Furthermore, Strickland (as cited in Neuman & Dickinson, 2001) stressed the need for a pre-K curriculum for African American children emphasizing vocabulary and language development in

conjunction with print awareness and experiences with print in the form of books.

Table 29

Pretest and Posttest Language Scores on the Developmental Indicators for the Assessment of Learning

Individual student	Pretest score	Posttest score
1	97	131
2	88	121
3	72	102
4	100	135
5	106	107
6	88	126
7	95	128
8	102	108
9	87	135
10	69	79
11	94	128
12	109	110
13	105	106
14	97	121
15	65	110
16	90	112

Conclusion 3. The third projected outcome was that 40% or more of the study participants would achieve mastery of alphabet-knowledge and phonemic-awareness skills by the end of the intervention period, as evidenced by performance documented on checklists. Intervention outcome data were presented in Tables 12–27. This outcome was

not fully met. Although 40% of the students achieved mastery in letter recognition and letter naming, this outcome was not achieved for letter-sound knowledge and phonemic awareness. The conclusion based on Outcome 3 is that student mastery of letter-sound knowledge and phonemic-awareness skills is more difficult for young children and that progress in this area is more problematic, despite intervention activities.

Findings with regard to Outcome 3 can be related to other literature in the field related to young children's growth in letter naming, letter identification, alphabet awareness and phonemic skills. With regard to letter naming and letter recognition, McGee and Richgels (2000) stated that it is not uncommon for some children to enter kindergarten unable to name or recognize any letters of the alphabet, but it is also not uncommon that find 4-year-old children who can name and recognize as many as 10 letters, although it takes a little longer for these children to learn the names of all the letters of the alphabet. Nevertheless, experts in this area (Justice & Kaderavek, 2004b; Morrow, 2001) stressed that instruction in letter awareness is essential in the emergent literacy curriculum, especially for at-risk children, and that intervention indeed can lead to greatly improved performance in letter recognition and letter naming. In the case of this study, the majority of the children were able to learn letter names and identify all letters by the end of the intervention program.

Beyond alphabet knowledge, the children in this study did not achieve targeted goals in letter-sound knowledge and phonemic awareness. Dodd and Carr (2003) pointed out that children do not acquire letter-sound knowledge skills at the same rate. In addition, they noted, children from a low-SES background often perform at the lowest levels when assessed for their letter-sound abilities. Furthermore, McGee and Richgels (2000) introduced the idea that even if letter-sound knowledge skills are not acquired,

children do learn rules concerning oral language that will assist them later in developing letter-sound knowledge. Carroll et al. (2003) maintained that children do not develop phonological awareness skills simultaneously, but rather develop their syllable and rhyme awareness skills before developing their phonemic awareness skills. These factors are plausibly related to McGee and Richgels's (2000) contention that children in the 3–5 age group often do not have a well-developed understanding of phonemes. The level of development of this skill largely depends on children's previous level of experiences with print. Additionally, children in this age group are often not fully matured in this skill. In conclusion, it was likely too ambitious of the researcher to expect the children in this study to achieve mastery in sound-symbol connections and phonemic awareness at a pre-K level. Participants showed definite improvement in these two skill areas, in that posttest mean scores were considerably higher than pretest mean scores, but less than the targeted 40% of the group was able to achieve total mastery in these tasks.

Conclusion 4. The fourth outcome called for 40% of the study participants to demonstrate an understanding of concepts of print as evidenced by their performance on the Concepts About Print test administered at the end of the intervention period. Assessment in this area was included because exposure to concepts of print is an important factor in acquiring adequate literacy skills (Clay, 1966, 1985, 1989; Justice & Ezell, 2004). Given the young age of the children and their pre-K setting, they were expected to acquire only 6 of the 24 concepts in the test. The intervention outcome data shown in Table 28 revealed that this outcome was met. In addition, as evidenced by the data in Table 28, 40% or more of the children also demonstrated mastery of some additional concepts about print that had not been targeted for mastery. This is an important finding and has value with respect to the importance of exposure to concepts of

print during read aloud and shared reading.

Although Clay (2002) did not identify specific concepts of print to be mastered by children at the pre-K level, she provided stanine scores that can be used to compare children's performance. Unfortunately, these stanines are for Grade 1 and not pre-K level. Nevertheless, it is worth noting the performance of the students in this dissertation study in relation to Clay's stanines. According to Clay (2002), a child who scores in the 4–6 stanine range should be able to be successful in typical reading activities at a Grade 1 level. Below this, according to Clay, a stanine of 3–4 indicates that a child will have some difficulty with average tasks and need some intervention by a teacher. Finally, a stanine of 0–2 indicates a need for intensive intervention in Grade 1. The performance of the pre-K participants in this applied dissertation study was translated to stanines, as shown in Table 30. As the table reveals, 10 students fall in Stanines 0–2, 1 student falls in Stanine 3, and 5 students fall in Stanines 4–6. This indicates that even though they are at the preschool level, 31.25% of the study participants likely would be successful when compared to a first-grade class at the beginning of the year, with regard to their knowledge of concepts of print. With a year in kindergarten, all of the children in the present study should be able to make even further advances in their knowledge of concepts of print.

More recent research by Crevola and Vineis (2004) provided further information on interpreting data regarding the acquisition of concepts of print. Crevola and Vineis identified 18 concepts rather than 24, and they specified that students entering kindergarten should be able to show an understanding of 6 of these concepts. By the end of kindergarten, students should have minimally mastered 14 of the 18 concepts. The concepts are largely identical to those in Clay's list, and they include the concepts

Table 30

Participants' Posttest Score and Stanine Group on the Concepts About Print Test

Student	Posttest score	Stanine group
1	10	2
2	12	4
3	8	1
4	14	5
5	5	1
6	6	1
7	10	2
8	13	4
9	14	5
10	6	1
11	11	3
12	12	4
13	8	1
14	8	1
15	7	1
16	8	1

measured in this applied dissertation, namely the front of a book, aspects of

directionality, and word and first letter. Based on the standards of Crevola and Vineis, all

of the pre-K children in this applied dissertation study already possess the necessary

concepts of print to advance to kindergarten, and some of the children also possess the

number of concepts called for by the end of kindergarten.

Conclusion 5. Although the four projected outcomes targeted for this applied dissertation were achieved in the majority of cases and the students demonstrated that they had greatly improved their literacy skills by the end of the intervention program, not all the children improved in all the areas, and this finding must also be recognized. This finding also should be noted in light of the reality that some barriers to improvement include cultural differences and low educational expectations in low-SES, African American communities. Researchers (Al Otaiba & Fuchs, 2002; Hall & Hall, 2003; Washington, 2001) suggested that even with intervention, some students still make little to no improvement, and that an extensive support system is sometimes necessary to create a substantive change in an at-risk population.

Other factors could have impacted the mixed outcomes in this study. First, the ages of the study participants varied from 4 years 3 months to 5 years 2 months at the time of the study. This may have impacted how well some of the children performed, particularly in those components of the study calling for more abstract reasoning. Next, some of the study participants had a high number of absences. For example, 5 of the study participants missed 13 days or more during the intervention period. Additionally, throughout the study, participants indicated that some of the books in the study were not as enjoyable as others, due to length of the story, clarity of the pictures, and relevance to their everyday lives. The lead teacher also tended to emphasize concepts of print on numerous occasions during the school day, which may have led to more growth in the area of concepts of print and less growth in the areas of letter-sound knowledge and phonemic awareness.

Unexpected Outcomes

In addition to the projected outcomes that were achieved, unexpected outcomes

emerged that are also noteworthy. The first unexpected outcome was how readily the study participants embraced the intervention activities. Students, teachers, and the school administrator all participated enthusiastically in the program. The teachers reported consistently that the students responded positively to the structure and repetition that was a primary characteristic of the intervention program. The teachers also participated positively and reported looking forward to the daily program. The center director remained interested in the program delivery and was conscientious about observing strategy use and student performance. An implication of this outcome is that positive response of participants in an intervention is beneficial to positive intervention outcomes.

Another unexpected outcome was how easily the study participants adjusted to receiving instruction from the researcher. First, the students responded well to the writer and willingly took directions from her as readily as they did from their regular teachers. Second, the regular teachers who were also participants in the study were most willing and receptive to the professional development sessions presented by the writer as well as to the comments and feedback presented to them in connection with daily lessons and activities. An implication of the former outcome is that young children indeed can be taught effectively by two or three teachers at one time, who can deliver a structured program together. An implication of the latter outcome is that professional development for teachers is welcomed by teachers, and that professional growth by the teachers can result in positive outcomes for at-risk preschoolers. The teachers who participated in this study expressed repeatedly that their instructional competency had improved as a result of having specific strategies to utilize with students, specifically students who are at risk.

An additional unexpected outcome was that the director of the center where the study occurred expressed a desire to continue to utilize all of the strategies introduced

during the intervention period. The center director decided to utilize this approach in future planning to enhance the curriculum. The director decided to structure a read-aloud and shared-reading program with the activities used in this intervention program and to utilize the books from the study that the students were most receptive to during the study. An implication of this outcome is that the program delivered in this study may be beneficial for other preschool programs with at-risk students.

The writer has shown that a preschool program that emphasizes read aloud, shared reading, story retelling, alphabet knowledge, phonemic awareness, and professional development for teachers can be successful in improving the literacy skills of at-risk African American children. Overall, the applied dissertation intervention program was effective in solving the problem addressed.

Recommendations

Based upon the findings of this applied dissertation intervention, the writer considers the following recommendations important and beneficial. Recommendations are presented in two areas: research and practice.

Research. The first set of recommendations relates to research in this area. Given that this study took place in a specific pre-K context and that the number of participating students in this study was small, it is difficult to generalize the findings beyond the specific context. As such, it is recommended that further research be conducted and that this research attend to the following three factors:

1. This study should be replicated to explore whether similar findings emerge with additional at-risk, preschool, African American students in other settings across the United States.

2. The participant group was small in this study; therefore, the study should be

replicated with larger groups of students to allow for an examination of trends across broader groups.

3. This research should be replicated using other assessment tools to determine whether projected outcomes and actual results vary greatly from the present study.

Practice. Next, specific recommendations are put forth here as they relate to practice, most specifically in terms of improving the local More at Four preschool program. The findings lead to the following four practical recommendations:

1. The center director should continue to utilize the professional development component of this intervention. If new teachers are exposed to effective teaching strategies upon hire, the students will be more likely to experience positive outcomes. Many teachers are not aware of the most effective teaching strategies with at-risk populations. Professional development could be a mandatory component of new teacher orientation, delivered prior to the start of the school term so that the teachers would be better prepared prior to interacting with the students in the classroom.

2. The center director and teachers should encourage other preschool programs that serve at-risk students to utilize a program similar to the one in this intervention to improve emergent literacy skills in at-risk preschoolers throughout the county. Many students who are at risk do not receive effective intervention until after they enter public school. A program such as this one would give the students a better opportunity to be able to meet the academic challenges they will face in the public classroom setting.

3. The center director should consider incorporating a summer bridge emergent literacy program for students who continue to exhibit below-average skills at the end of the school term. At-risk students still having problems achieving adequate emergent literacy skills are at great risk for school failure. The summer program could include

activities for parents to use at home to reinforce deficient emergent literacy skills.

4. With regard to the specific components of the instructional program itself, some recommendations are put forth here to assist teachers in planning and delivery of the program. It is recommended that the daily read aloud and shared reading as well as the conversational story retelling remain as they were implemented. Beyond this, some changes in program are recommended. The study participants had the most difficulty with acquiring phonemic awareness and letter-sound skills; therefore, most components of this aspect of the intervention should be excluded due to the varying age and developmental levels at which these skills are acquired. However, the alphabet-knowledge component, which includes name games and a sign-in procedure, should remain to give the students some exposure to alphabet-knowledge skill development. The phonemic-awareness components, which include rhyme and syllable awareness, should be included in the name games to assist the students with developing phonemic awareness.

Dissemination

The writer plans to disseminate the results of this applied dissertation in the following five ways:

1. The findings from this study will be disseminated to the daycare director and the classroom teachers in the writer's work setting.

2. A meeting will be arranged with the director of children's initiatives at the local United Way Agency to present a summary presentation.

3. An overview of the findings will be disseminated to the parents or guardians of the study participants with suggestions for ways to improve their students' emergent literacy skills.

4. The study and the findings will be presented at the North Carolina Association for the Education of Young Children and More at Four Study Conference in 2006.

5. Finally, the writer will consider preparing an article for submission to her professional organization's journal for possible publication. It is the writer's hope that the people who receive the results of this study will work to design and provide additional support aimed at improving the emergent literacy skills of at-risk children.

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Appendix A

Alphabet Knowledge Informal Assessment Sheets

Alphabet Knowledge Informal Assessment – Letter Naming

Date: _____   Examinee: _____

<u>Letter naming.</u> Say to the child, "Point to and say the names of the letters that you know."

(Circle correct responses.)

A	E	I	M	Q	U	Y
B	F	J	N	R	V	Z
C	G	K	O	S	W	
D	H	L	P	T	X	

<u>Letter naming</u>: Number of correct responses: _____

Alphabet Knowledge Informal Assessment – Letter Recognition

Date: _____   Examinee: _____

<u>Letter recognition</u>. Say to the child, "I am going to say the names of these letters. Point to the letter that I say." (Circle correct responses.)

A	E	I	M	Q	U	Y
B	F	J	N	R	V	Z
C	G	K	O	S	W	
D	H	L	P	T	X	

<u>Letter recognition</u>: Number of correct responses: _____

Alphabet Knowledge Informal Assessment – Letter-Sound Knowledge

Date: _____   Examinee: _____

<u>Letter-sound knowledge.</u> Say to the child, "I am going to say some words and I want you

to point to the letter that the word begins with." (Circle correct responses.)

A	E	I	M	Q	U	Y
B	F	J	N	R	V	Z
C	G	K	O	S	W	
D	H	L	P	T	X	

<u>Letter-sound knowledge</u>: Number of correct responses: _____

Appendix B

Phonemic Awareness Informal Assessment

Phonemic Awareness Informal Assessment

Date: _____   Examinee: _____

<u>Identifying beginning sounds in words.</u> Say to the child, "I am going to say some words and I want you to tell me the sound that the word begins with." (Circle correct responses.)
1. fat
2. hair
3. name
4. race
5. seat

<u>Identifying ending sound in words.</u> Say to the child, "I am going to say some words and I want you to tell me the sound that the word ends with." (Circle correct responses.)
1. bee
2. car
3. go
4. my
5. tree

<u>Blending sounds.</u> Say to the child, "I am going to say some words in a special way by making the sounds long. Put the sounds together and tell me the word that I said." (Circle correct responses.)
1. b…..i……g
2. c…..a……n
3. j…..o……b
4. m…..a……k……e
5. sh…….oe

<u>Rhyming.</u> Say to the child, "I am going to say some words and I want you to say 'yes' if the two words rhyme and 'no' if they don't." (Circle correct responses.)
1. cat   hat
2. car   far
3. bag   truck
4. rose   book
5. bed   red

<u>Identifying beginning sounds:</u> Number of correct responses: _____

<u>Identifying ending sounds:</u> Number of correct responses: _____

<u>Blending</u>: Number of correct responses: _____

<u>Rhyming</u>: Number of correct responses: ____

Appendix C

Details of Implementation Format and Timeline

Details of Implementation Format and Timeline

Week 1

Professional development sessions for classroom teachers. This professional development was for the lead teacher and the two assistant teachers and was held to introduce them to strategies associated with shared reading and read aloud, story retelling, phonemic awareness and alphabet knowledge, and concepts about print. A 1-hour session on each of these topics was held over the first 3 days of the week, and the session on the 4th day was spent reviewing the topics and addressing teachers' understandings of the topics.

Pretesting on the 17 students in the pre-K program. Pretesting included administration of the DIAL-3, the PPVT-III, the Concepts About Print test, and the informal early literacy checklists.

Week 2, Day 1

Read aloud. The book was *Goodnight Moon* by Margaret Wise Brown, Harper Collins, 1991. Teacher and students read book and developed concepts about print (cover, title, illustrations, front, back, and spine) and reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session was held to improve phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, Number Your Names was used with the students' names for half of the group. For phonemic awareness, the focus was on listening to sounds. The students explored their

listening powers and practiced focusing their attention on particular sounds of interest. Through this game, the children discovered that if they listened, they could hear sounds from outdoors, indoors, and even from within themselves.

Week 2, Day 2

Read aloud. Teacher read the book. A follow-up activity used a magnifying glass to hunt for all the objects to which Bunny said goodnight. Students defined the objects and discussed their uses.

Story retelling. The focus was on naming the characters in the story and on describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, Number Your Names was used (half of the students' names). For phonemic awareness, Poetry, Songs and Jingles was used. The students were introduced to poems and chants in ways to enhance their awareness of the sound patterns of speech.

Week 2, Day 3

Read aloud. After reading a book, the follow-up activity focused on sequencing activities that occur when preparing for bed.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, People Puzzles were used. For phonemic awareness, students listened to sequences of sounds to develop memory and attentional abilities for thinking about sequences of sounds and the language for discussing them.

Week 2, Day 4

Read aloud. After reading the book, the follow-up activity was to discuss things

that students like to say goodnight to before going to bed. Students defined the objects and discussed their uses.

Story retelling. The focus was on retelling story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the People Puzzles activity was used. For phonemic awareness, Rhyme Stories were used to teach how to use meaning and meter to notice and predict rhyming words.

Week 2, Day 5

Read aloud. After reading the book, the follow-up activity was to prepare pictures of each object the bunny says goodnight to. Students acted out the story by going to bed with their object when their name was called.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, You're our Friend name chant was used. For phonemic awareness, the focus was on listening to sequences of sounds. The students explored their listening powers and practiced focusing their attention on particular sounds of interest. Through this game, the children discovered that if they listened, they could hear sounds from outdoors, indoors, and even from within themselves. Poetry, Songs, and Jingles was used to introduce students to poems and chants in ways that enhanced their awareness of the sound patterns of speech. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 3, Day 1

Read aloud. A 30-minute session with participants included follow-up activities

to build concepts of print. The book was *Very Hungry Caterpillar*, by Eric Carle, Penguin Young Readers Group, 1994. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies focusing on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, Letter Detective was used. For phonemic awareness, the focus was on listening to sequences of sounds. The students developed the memory and attentional abilities for thinking about sequences of sounds and the language for discussing them.

Week 3, Day 2

Read aloud. After reading the book, the follow-up activity used the magnifying glass to hunt for the foods mentioned in the story. Teacher helped students to make a list of each food they found.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, Letter Detective was used. For phonemic awareness, the Jacob Where are You? activity was used. The students learned to locate the source of a sound by listening only.

Week 3, Day 3

Read aloud. After reading the book, the follow-up activity focused on making a caterpillar. The students glued together several red and green felt circles (2-3 in. in

diameter). Two 2-in. pipe cleaners were attached to the head for antennae. Students drew faces with markers. The students described what they were doing.

Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, ABC Lineup was used. For phonemic awareness, the Hiding the Alarm Clock activity was used. Students located a sound that blended easily with the random noises in the environment. The children developed and expanded upon the ability to stretch their listening attention in time.

Week 3, Day 4

Read aloud. After reading the book, the follow-up activity focused on using pictures of food. The students identified the appropriate category: meat, fruit, bread/grain, vegetables, and so on.

Story retelling. The focus was on retelling the story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the ABC Lineup activity was used. For phonemic awareness, Rhyme Stories were used to teach students how to use meaning and meter to notice and predict rhyming words.

Week 3, Day 5

Read aloud. After reading the book, the follow-up activity had students sequence pictures of how a caterpillar becomes a butterfly. Students explained the sequence of events.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, Alphabet Beach Ball was used. When a student caught the ball, he or she named the letter. For phonemic awareness, Poetry, Songs, and Jingles was used to introduce students to poems and chants in ways that enhanced their awareness of the sound patterns of speech. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 4, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Brown Bear, Brown Bear,* by Bill Martin, Henry Holt, 1996. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or makes a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Alphabet Train activity was used. For phonemic awareness, the focus was on listening to sounds. Who Says What? was used to help students listen for a particular sound and to pair it with its source.

Week 4, Day 2

Read aloud. After reading the book, the follow-up activity was for students to list animals from the story and describe the animals.

Story retelling. The focus was on naming the characters in the story and

describing some characteristics of the characters (e.g., personalities, appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Train activity was used. For phonemic awareness, Emphasizing Rhyme Through Movement was used; the students focused their attention on rhyme.

Week 4, Day 3

Read aloud. After reading the book, the follow-up activity focused on distributing character name cards with punched holes and strung around the students' necks. The students stood when their character's name was called.

Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Friends from A to Z activity was used. For phonemic awareness, students picked out one specific sound from many similar sounds that were heard at once. The Whisper Your Name activity was used.

Week 4, Day 4

Read aloud. After reading the book, the follow-up activity was to classify animals in the story based on where they lived.

Story retelling. The focus was on retelling the story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Friends from A to Z activity was used. For phonemic awareness, Jacob Where Are You? was used. Students learned to locate the source of a sound by listening only.

Week 4, Day 5

Read aloud. After reading the book, the follow-up activity was a color hunt. The

teacher distributed character cards and explained to the students that they needed to find two things in the classroom that were their color. Students drew pictures of what they found and discussed.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Rolling Letters activity was used. For phonemic awareness, the focus was on using meaning and meter to notice and predict rhyming words. Rhyme Stories were used. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 5, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Alexander and the Terrible, Horrible Very Bad Day,* by Judith Viorst, Simon and Schuster Children's, 1987. The teacher and students read the book and developed concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies focusing on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Listen and Learn—Beginning Sounds activity was used. For phonemic awareness, the focus was on listening to sounds. The students developed their ability to attend to

differences between what they expected to hear and what they actually heard.

Week 5, Day 2

     Read aloud. After reading the book, the follow-up activity was completing a story map of the story.

     Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

     Phonemic awareness and alphabet knowledge. For letter knowledge, the Listen and Learn activity was used. For phonemic awareness, Poetry, Songs, and Jingles was used. The students were introduced to poems and chants in ways to enhance their awareness of the sound patterns of speech.

Week 5, Day 3

     Read aloud. After reading the book, the follow-up activity focused on creating a character mobile for Alexander from the book. .

     Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

     Phonemic awareness and alphabet knowledge. For letter knowledge, Name Frames was used. For phonemic awareness, Who Says What? was used. Students listened for a particular sound to pair it with its source.

Week 5, Day 4

     Read aloud. After reading the book, the follow-up activity was to create a character mobile of Mom and Dad from the story.

     Story retelling. The focus was on retelling story in the correct order from beginning to end.

     Phonemic awareness and alphabet knowledge. For letter knowledge, the Name

Frames activity was used. For phonemic awareness, the focus was on listening to sound

patterns of speech. Poetry, Songs, and Jingles was used for students to experience poems

and chants in ways that enhanced their awareness of the sound patterns of speech.

Week 5, Day 5

    Read aloud. After reading the book, the follow-up activity was to create a new

ending for the story, drawing pictures to illustrate.

    Story retelling. The focus was on having students draw a picture of their favorite

part of the story and discuss it.

    Phonemic awareness and alphabet knowledge. For letter knowledge, You're our

Friend name chant was used. For phonemic awareness, the focus was on listening, using

Whisper Your Name. Students picked out one specific sound from many similar sounds

that were heard at once. The writer and classroom teachers conducted the read-aloud,

story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the

participants.

Week 6, Day 1

    Read aloud. A 30-minute session with participants included follow-up activities

to build concepts of print. The book was *Chicka, Chicka, Boom, Boom,* by Bill Martin,

Aladdin Paperbacks, 2000. The book was read aloud to develop concepts about print

(cover, title, etc.) and reading strategies to focus on rhyme and predictable story pattern.

    Story retelling. A 15-minute session developed students' oral language skills. The

focus was on having students describe the setting of the story (tell where the story begins

or make a statement about time and place in the book).

    Phonemic awareness and alphabet knowledge. A 30-minute session improved

phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the

Name Bingo game was used. For phonemic awareness, the focus was on listening. The Whispering Game was used. The students exercised their ability to overcome distractions, pronunciation differences, and so on, while listening to language.

Week 6, Day 2

Read aloud. After reading the book, the follow-up activity was to act out the book. A letter tree was used, and letter puppets were distributed to the children. As the story was reread, each puppeteer put his or her letter on the coconut tree. When the letters fell, each child took his or her letter and placed it on the pile at the base of the tree.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Bingo game was used. For phonemic awareness, Rhyme Stories were used. The students were taught how to use meaning and meter to notice and predict rhyming words.

Week 6, Day 3

Read aloud. After reading the book, the follow-up activity focused on descriptive words. The teacher and students turned to the "skinned knee D" page. The teacher asked the children if they could remember what part of D got hurt when he fell from the tree. This was repeated for "stubbed toe E," "patched up F," "black-eyed P," and "loose tooth T." Participants discussed the descriptors used in the book.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, Name Bingo was used. For phonemic awareness, students were asked to emphasize rhyme through movement. Through this activity, students focused their attention on rhyme.

Week 6, Day 4

Read aloud. After reading the book, the follow-up activity was to turn to the page where the uppercase Z, R, J, and N had come to "hug their little dears." The teacher and students pointed to each of the uppercase and lower case letters on the page. Today students were looking for the little letters, like the ones that we had seen in the book. Students used the letters from the Day 2, Week 6 activity.

Story retelling. The focus was on retelling story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, Alphabet Bingo was used. For phonemic awareness, the Word Rhyming activity was used. Students realized that almost any word could be rhymed, not just those in other people's poems.

Week 6, Day 5

Read aloud. After reading the book, the follow-up activity was to discuss the illustrator and author of the book. The teacher used a picture of the author and illustrator. The teacher reread the title, then read the author and illustrator information. When each name was read, the teacher pointed to the picture. Participants discussed what an author does and what an illustrator does.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Beach Ball game was used. For phonemic awareness, the focus was on memory, using the Do You Remember? activity. Students exercised their ability to remember and execute actions in sequential steps and more generally developed the kind of attentive

listening that is necessary for understanding and following verbal instructions. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 7, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Are You My Mother?* by P. D. Eastman, Random House Children's Books, 2005. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Pin the Tail on the Letter activity was used. For phonemic awareness, the focus was on listening to sounds. The Whisper Your Name activity was used. The students picked out one specific sound from many similar sounds that were heard at once.

Week 7, Day 2

Read aloud. After reading the book, the follow-up activity involved students discussing what they would do if they became separated from their mother or father.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Egg Carton Letter activity was used. For phonemic awareness, Poetry, Songs, and Jingles was

used. The students were introduced to poems and chants in ways to enhance their awareness of the sound patterns of speech.

Week 7, Day 3

Read aloud. After reading the book, the follow-up activity focused on families. Each student described his or her family.

Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Pin the Tail on the Letter activity was used. For phonemic awareness, the Nonsense activity was used. The students developed their ability to attend to differences between what they expected to hear and what they actually heard.

Week 7, Day 4

Read aloud. After reading the book, the follow-up activity was to discuss animals, particularly mothers and their young. Pictures of animal mothers were taped across a bulletin board. Students matched the pictures of the young to the mother.

Story retelling. The focus was on retelling the story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Egg Carton Letter activity was used. For phonemic awareness, the Rhyme Stories activity was used to teach students how to use meaning and meter to notice and predict rhyming words.

Week 7, Day 5

Read aloud. After reading the book, the follow-up activity was to create a character mobile of Mother Bird.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Rolling Letters activity was used. For phonemic awareness, the Word Rhyming activity was used. Students realized that almost any word can be rhymed, not just those in other people's poems. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 8, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *One Fish, Two Fish, Red Fish, Blue Fish,* by Dr. Seuss, Random House, 1976. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Aa Alphabet Lesson was used. For phonemic awareness, the focus was on listening, using the Nonsense activity was used. The students developed their ability to attend to differences between what they expected to hear and what they actually heard.

Week 8, Day 2

Read aloud. After reading the book, the follow-up activity was to discuss the patterns used in the story. Participants listed the categories of patterns used in this story

(rhymes, opposites, colors, and numbers).

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. The Aa Alphabet Lesson choral reading activity was used. For phonemic awareness, Poetry, Songs, and Jingles was used. The students were introduced to poems and chants in ways to enhance their awareness of the sound patterns of speech.

Week 8, Day 3

Read aloud. After reading the book, the follow-up activity focused on rhymes. The rhyming words from the story were listed on a large sheet of paper.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Bb Alphabet Lesson was used. For phonemic awareness, Jacob, Where Are You? was used. Students learned to locate the source of a sound by listening only.

Week 8, Day 4

Read aloud. After reading the book, the follow-up activity was to list the opposites from the story on a large sheet of paper.

Story retelling. The focus was on retelling story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Bb Alphabet Lesson was used. For phonemic awareness, the Do You Remember? activity was used to help students exercise their ability to remember and execute actions in sequential steps and more generally to develop the kind of attentive listening that is

necessary for understanding and following verbal instructions.

Week 8, Day 5

    Read aloud. After reading the book, the follow-up activity was to categorize the fish from the story. Students made paper replicas of the fish and categorized them with a Venn diagram. Participants put red fish into a red circle, blue fish into a blue circle, and blue and red fish in the middle. Each student received a fish to put in the diagram.

    Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

    Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Match Me Game was used. For phonemic awareness, the Word Rhyming activity was used to help students realize that almost any word can be rhymed, not just those in other people's poems. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 9, Day 1

    Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Fish is Fish,* by Leo Lionni, Knopf, 1974. Participants read the book to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

    Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

    Phonemic awareness and alphabet knowledge. To build letter knowledge, the Bb Alphabet Lesson was used. For phonemic awareness, the Rhyme Stories activity was

used. Students were taught how to use meaning and meter to notice and predict rhyming words.

Week 9, Day 2

Read aloud. After reading the book, the follow-up activity was to discuss how a tadpole turns into a frog. The events were sequenced with the students.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Bb Alphabet Lesson was used. For phonemic awareness, the students strengthened their awareness of words with a Hearing Words in Sentences activity.

Week 9, Day 3

Read aloud. After reading the book, the follow-up activity focused on categorizing animals that live in water and those that live on the land.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Cc Alphabet Lesson was used. For phonemic awareness, the Clapping Names activity was used. Students learned to clap and count the syllables in their own names.

Week 9, Day 4

Read aloud. After reading the book, the follow-up activity was to discuss differences and similarities. The teacher taped up two pictures, one of a fish and one of a frog, and participants noted differences and similarities.

Story retelling. The focus was on retelling story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Cc Alphabet Lesson was used. For phonemic awareness, the Poetry, Songs, and Jingles activity was used. Students experienced poems and chants in ways that enhanced their awareness of the sound patterns of speech.

Week 9, Day 5

Read aloud. After reading the book, the follow-up activity had students use construction paper to create "fish animals" like the ones in the story. Students described them to the class.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Dice game was used. For phonemic Awareness, the Whispering game was used. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 10, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Sheep in a Jeep,* by Nancy E. Shaw, Houghton Mifflin, 1988. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved

phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Dd Alphabet Lesson was used. For phonemic awareness, Emphasizing Rhyme Through Movement was used. The students focused their attention on rhyme.

Week 10, Day 2

Read aloud. After reading the book, the follow-up activity was to complete a rhyme chart. The students divided rhyming words from book into -eep and -eap words.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Dd Alphabet Lesson was used. For phonemic awareness, the Hearing Words in Sentences activity was used. The students strengthened their awareness of words in sentences.

Week 10, Day 3

Read aloud. After reading the book, the follow-up activity focused on definitions of words. The students discussed the definitions of *cheap, steep,* and *steer*.

Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge the Ee Alphabet Lesson was used. For phonemic awareness, Action Rhymes was used. The students depended more strongly on phonological cues to generate rhymes.

Week 10, Day 4

Read aloud. After reading the book, the follow-up activity was to make sheep pictures. Students used red construction paper for the jeep and cotton balls for the sheep.

Story retelling. The focus was on retelling story in correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Ee Alphabet Lesson was used. For phonemic awareness, Poetry, Songs, and Jingles was used. The students experienced poems and chants in ways that enhanced their awareness of the sound patterns of speech.

Week 10, Day 5

Read aloud. After reading the book, the follow-up activity was to act out the story. Students received paper steering wheels so that they could mimic driving a jeep. Students got out of the jeep, got in the jeep, got behind the jeep to push, and so on.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the What's in the Bag? ABC Game was used. For phonemic awareness, the Do You Remember? activity was used. The students exercised their ability to remember and execute actions in sequential steps and more generally developed the kind of attentive listening that is necessary for understanding and following verbal instructions. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 11, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *Go, Dog. Go!* by P. D. Eastman, Random House Children's Books, 1961/1997. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The

focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Ff Alphabet Lesson was used. For phonemic awareness, the Rhyme Stories activity was used. The students were taught how to use meaning and meter to notice and predict rhyming words.

Week 11, Day 2

Read aloud. After reading the book, the follow-up activity was discussing the colors of dogs in the story. Students received a picture of a dog to color their favorite color.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Ff Alphabet Lesson was used. For phonemic awareness, The Ship Is Loaded With . . . activity was used. The students learned how to use phonological cues to generate rhymes.

Week 11, Day 3

Read aloud. After reading the book, the follow-up activity was to discuss what the students do when they have a hard time going to sleep, like the dog in the book.

Story retelling. The focus was on describing how the story's problem was solved or an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Gg Alphabet Lesson was used. For phonemic awareness, the Exercises With Short and Long Words activity was used. Students were aware of words and realized that words are

defined by meaning, and that they can be long or short, independently of their meaning.

Week 11, Day 4

Read aloud. After reading the book, the follow-up activity was to create a character mobile of Dog from the story.

Story retelling. The focus was on retelling story in correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Gg Alphabet Lesson was used. For phonemic awareness, the Poetry, Songs, and Jingles activity was used. Students experienced poems and chants in ways that enhanced children's awareness of the sound patterns of speech.

Week 11, Day 5

Read aloud. After reading the book, the follow-up activity was to have a dog party. Students decorated party hats and discussed the similarities and differences between them.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Memory game was used. For phonemic awareness, the Take One Thing From the Box activity was used. Students analyzed words into syllables by clapping and counting the syllables in a variety of different words. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 12, Day 1

Read aloud. A 30-minute session with participants included follow-up activities

to build concepts of print. The book was *Noisy Nora,* by Rosemary Wells, Viking, 1999. The book was read aloud to develop concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story elements.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Hh Alphabet Lesson was used. For phonemic awareness, the Rhyme Stories activity was used. Students were taught how to use meaning and meter to notice and predict rhyming words.

Week 12, Day 2

Read aloud. After reading the book, the follow-up activity was to discuss the different ways that Nora tried to get attention. The teacher listed the different ways on a flip chart, using student input.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Hh Alphabet Lesson was used. For phonemic awareness, the Clapping Names activity was used. Students learned to clap and count the syllables in their own names.

Week 12, Day 3

Read aloud. After reading the book, the follow-up activity focused on story mapping. A large circle was drawn on a large sheet of paper to represent Nora's face. A

student drew Nora's face inside the circle to describe how she felt. The students described the emotion Nora felt.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Ii Alphabet Lesson was used. For phonemic awareness, the Exercises With Short and Long Words activity was used. Students became aware of words and realized that words are defined by meaning, and that they can be long or short, independently of their meaning.

Week 12, Day 4

Read aloud. After reading the book, the follow-up activity was to think about an alternative ending to the story. Students used paper and crayons to illustrate their endings. The children shared and described their drawings.

Story retelling. The focus was on retelling story in correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Ii Alphabet Lesson was used. For phonemic awareness, the Poetry, Songs, and Jingles activity was used. Students experienced poems and chants in ways that enhanced their awareness of the sound patterns of speech.

Week 12, Day 5

Read aloud. After reading the book, the follow-up activity was to help students explore sound. The teacher reminded students of the many different sounds that Nora made throughout the story. Students investigated other sounds Nora might have made. Dropped a carton of eggs? Popped a balloon?

Story retelling. The focus was on having students draw a picture of their favorite

part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Lotto game was used. For phonemic awareness, the Action Rhymes activity was used. The students learned how to depend more strongly on phonological cues to generate rhymes. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 13, Day 1

Read aloud. A 30-minute session with participants included follow-up activities to build concepts of print. The book was *The Snowy Day,* by Ezra Jack Keats, Penguin Group (USA), 1996. Reading the book aloud developed concepts about print (cover, title, illustrations, front, back, and spine). The book was reread using shared-reading strategies to focus on rhyme and predictable story pattern.

Story retelling. A 15-minute session developed students' oral language skills. The focus was on having students describe the setting of the story (tell where the story begins or make a statement about time and place in the book).

Phonemic awareness and alphabet knowledge. A 30-minute session improved phonemic-awareness and alphabet-knowledge skills. To build letter knowledge, the Jj Alphabet Lesson was used. For phonemic awareness, the King's/Queen's Successor activity was used. The students experienced the rhythm of words through repeated movement.

Week 13, Day 2

Read aloud. After reading the book, the follow-up activity was to discuss activities that students can do in the snow. Students listed the activities Peter participated in the story.

Story retelling. The focus was on naming the characters in the story and describing some characteristics of the characters (e.g., personalities and appearance).

Phonemic awareness and alphabet knowledge. For letter knowledge, the Jj Alphabet Lesson activity was used. For phonemic awareness, the Rhyme Stories activity was used. The students were taught how to use meaning and meter to notice and predict rhyming words.

Week 13, Day 3

Read aloud. After reading the book, the follow-up activity was to create a character mobile of Peter from the story.

Story retelling. The focus was on describing how the story's problem was solved or how an important goal was attained.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Kk Alphabet Lesson was used. For phonemic awareness, the Do You Remember? activity was used. The students exercised their ability to remember and execute actions in sequential steps and more generally to develop the kind of attentive listening that is necessary for understanding and following verbal instructions.

Week 13, Day 4

Read aloud. After reading the book, the follow-up activity was to discuss seasons of the year. Cards with pictures of seasons of the year were used to sequence the seasons.

Story retelling. The focus was on retelling story in the correct order from beginning to end.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Kk Alphabet Lesson was used. For phonemic awareness, the Exercises With Short and Long Words activity was used. The students become aware of words and realized that words

are defined by meaning, and that they can be long or short, independently of their meaning.

Week 13, Day 5

Read aloud. The book was read aloud, followed by the Snowman activity. Students made a snowman with construction paper.

Story retelling. The focus was on having students draw a picture of their favorite part of the story and talk about it.

Phonemic awareness and alphabet knowledge. For letter knowledge, the Alphabet Bingo game was used. For phonemic awareness, the Rhyme Book activity was used. The students created a rhyme book to celebrate and show off their mastery of rhyme. The writer and classroom teachers conducted the read-aloud, story-retelling, phonemic-awareness, and alphabet-knowledge sessions with the participants.

Week 14

Posttesting on the 16 remaining students in the pre-K program included administration of the DIAL-3, the PPVT-III, the Concepts About Print test, and the informal early literacy checklists.