AN EVALUATION OF THE TALES FOR TOTS PROGRAM

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By

Ashley Nicole Costner

Director: Dr. Mickey Randolph
Professor of Psychology
Psychology Department

Committee Members: Dr. Candace Boan-Lenzo, Psychology
Dr. Marilyn Chamberlain, Sociology
Dr. Gayle Wells, Health, Physical Education, and Recreation

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ABSTRACT

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Ashley Nicole Costner, S.S.P.

Western Carolina University (April 2010)

Director: Dr. Mickey Randolph

Learning to read is challenging for the majority of children today. Current research documents multiple early reading skills that are essential for later literacy development in children. Further, research on early literacy programs presents inconsistent findings on a variety of variables, such as SES, gender, ethnicity, parental education, and the specific skills that improve with interventions. The current evaluation aimed to evaluate Tales for Tots, an early literacy program in Macon County, NC. In addition, the study investigated many of the variables with which past researchers have studied and found inconsistent findings. DIBELS scores of Tales for Tots participants and non-Tales for Tots participants were compared, and data reported by the families of participants (i.e. demographic and reading behavior data) were used for analyses. It was found that improvements in DIBELS scores of Tales for Tots participants were evident for the measures of Letter Naming Fluency and Nonsense Word Fluency in kindergarten, and Phonemic Segmentation Fluency in first grade. It was also found that Tales for Tots participants who were reportedly read to daily, scored higher than Tales for Tots participants who were not read to daily. Results are discussed and recommendations for future research are provided.

INTRODUCTION

"The importance of reading for learning and for functioning in the world cannot be overemphasized. For nearly 60 percent of children in the United States, learning to read presents some challenge" (Littlefield & Klein, 2005, p.363). It has been found that reading problems are the single most frequent reason for referral for special education eligibility consideration (Reschly, 2008). Because children entering elementary school vary greatly in early skills that provide the launching pad for later literacy learning, children's reading performance has increasingly become a problem in schools for children of all ages (National Institute for Literacy, 2009). Gersten and Dimino (2006) noted that students who do not learn to read by the end of first grade almost invariably remain poor readers. Nearly 40 percent of fourth-grade students today are below the basic level in reading (Begeny, 2006).   In response to this information, researchers and educators have developed numerous types of early interventions and programs with the intention of targeting these literacy problems.

In determining the effectiveness of these programs, researchers have reported inconsistent findings, particularly the impact of certain variables, such as socioeconomic statuses of families, parental education, gender, ethnicities; and which reading sub-skill areas may be impacted. Research has shown that parental education level and SES have an impact on children's early literacy development (Dickinson & Tabors, 2001; Hart & Risley, 1995; Natriello, McDill, & Pallas, 1990; Snow, Barnes, Chandler, Goodman, & Hemphill, 1991). Additionally, since racial and ethnic diversity of children today is

increasing, it is important that new interventions take all of these changes and variables into account (Fiore, 2001).

Research on literacy has documented many other variables that have mixed or inconclusive findings in terms of their impact on reading, such as family habits (e.g. how often parents read with their children, whether books are purchased for children, how many hours a day children watch television, and how being enrolled in an early childcare facility may impact how much children benefit from early intervention programs). For example, research has indicated that only about half of America's children from the ages of three to five years are read to daily by a family member and only a slight majority of children today are enrolled at some sort of early childcare center before entering kindergarten (Fiore, 2001).

Other research reported that parents' expressed interest in reading is significantly correlated to children's reading achievement scores (Snow et al., 1991). Parents who do not enjoy reading themselves may be unable to support their children's interest in reading (Bus, van Ijzendoorn, & Pellegrini, 1995). Furthermore, parents with a low level of literacy are unable to make a book comprehensible to an emergent reader. Elsea (2001) stated that children who see a purpose in reading in daily activities show greater motivation in learning to read. Hence, a parent's lack of interest in reading may create a lack of interest and poor motivation in their children to read. Dickson and Tabors (2001) noted that parents who read in front of their children act as positive models for them. Furthermore, a low amount of educational interaction between children and their parents may be linked to the low percentages of incoming kindergarteners entering school with the basic reading components, such as the ability to accurately recognize letters and

sounds, which are key skills in early literacy development and the beginning ability to read (Fiore, 2001). In other words, parents are often not engaging their children in educational activities at home, such as reading.

With all of the possible variables impacting literacy, it seems inevitable that research in this area would be difficult and lead to inconclusive results. Researchers often focus on particular areas of literacy, such as school or home influences. It has also been stated that some variables co-vary or influence each other, making it challenging for researchers to determine the impact of specific variables by themselves. For this reason, researchers often conclude that a variety of variables interact to impact literacy.

The following literature review will provide a definition of and discuss the importance of literacy, explain factors that impact literacy, discuss how schools have assessed and responded to literacy issues in the school setting, review literacy interventions and strategies, and finally discuss one specific early literacy program, Tales for Tots, that is the focus of this evaluation.

LITERATURE REVIEW

Literacy Defined

Literacy has been defined in many ways by researchers. The general public usually defines literacy as the ability to read and write (Central Intelligence Agency [CIA], 2009). However, for the purposes of this paper, the term literacy goes beyond this simple definition. Literacy shall be defined with a generally accepted definition as a set of related skills, rather than one specific skill or ability (Snow et al., 1991). Researchers have reported that among these skills are vocabulary, alphabet knowledge, phonological awareness, letter and word recognition, decoding, print knowledge, oral language, comprehension, and writing, all of which impact one's ability to learn to read (Bus et al., 1995; Hart & Risley, 1995; Huebner, 2000; Justice & Ezell, 2000; Justice & Ezell, 2002; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999; Lonigan & Whitehurst, 1998; NICHD, 2000; National Institute for Literacy, 2009; Snow et al. 1991).

Importance of Literacy

Literacy impacts all individuals in nearly every aspect of life. Many individuals are unable to read today. According to the CIA, which defines literacy as the ability to read and write, in 2003, 99 percent of Americans aged 15 and older were able to read and write (2009). However, the CIA stated that it does not have a universal definition of literacy that goes beyond the ability to read and write at a specific age; statistics in its database are based on the standards of each individual country. Ninety-nine percent may seem like an impressive statistic, but considering the fact that the current population is

over 307 million, one percent actually equates to three million, seventy thousand which is still a very large number.

Not being able to read puts individuals at a disadvantage in a number of areas, including finding jobs, being informed about the world (e.g. evidenced by the inability to read newspapers, magazines, or instruction manuals and understand words used on nightly newscasts), being more likely to be negatively involved with the law than the average person, and dropping out of school (National Endowment for the Arts [NEA], 2007; Natriello et al., 1990). Research has reported that employers are now ranking reading and writing as top deficiencies in newly hired employees (NEA, 2007). Children who struggle more in school are often still passed on to the next grade, but they become increasingly behind each year, especially in reading, and are thus more likely to drop-out of high school due to a lack of motivation and embarrassment (NEA, 2007; Natriello et al., 1990; Snow et al., 1991). Snow et al. (1991) stated that an alarming proportion of children enter and ultimately graduate from high school with the ability to read at only a late elementary level.

Factors that Impact Literacy

Researchers have found a multitude of variables that impact literacy. These variables can often be divided into two main categories: demographic variables and home environment variables.

Demographic variables. The most commonly discussed variables in this research are socioeconomic status (SES) (Burns, Snow, & Griffin, 1999; Dickinson & Tabors, 2001; Elsea, 2001; Hart & Risley, 1995; Lonigan et al., 1999; Snow et al., 1991), parental education level (Elsea, 2001; Snow et al., 1991), gender (Dickinson & Tabors, 2001; Hart

& Risley, 1995; Snow et al., 1991), and ethnicity (Burns et al., 1999; Dickinson &

Tabors, 2001; Hart & Risley, 1995). Researchers have indicated that children coming

from families with a lower SES have more difficult times developing literacy skills due to

limited resources and less supportive home environments (Burns et al., 1999; Dickinson

& Tabors, 2001; Hart & Risley, 1995; Snow et al., 1991). Furthermore, Elsea (2001)

suggested that low-income parents are often less knowledgeable about the importance of

reading to children. Lonigan et al. (1999) remarked that SES is one of the strongest

predictors of school performance at the beginning of the first grade. Specifically, they

concluded that children from low-income families are at-risk for reading difficulties,

more likely to be slow in the development of language skills, and less developed in letter

knowledge and phonological sensitivity before entering school than children from higher

income families. It has been found that children from families on welfare receive less

than half the language experience that children from working-class families receive.

These parents use fewer multi-clause sentences, have less rich vocabularies and ask their

children fewer questions (Dickinson & Tabors, 2001; Hart & Risley, 1995; Natriello et

al., 1990; Zevenbergen, Whitehurst, & Zevenbergen, 2003). This is important because it

specifies how low-income home literacy environments differ from middle- and high-

income environments.

 Parental education level is strongly related to SES. Parental education level is a

major predictor of a child's reading ability and school success (Snow et al., 1991).

Researchers suggest that parents with higher education levels are more likely to have a

higher income, and are, therefore, more likely to buy literacy materials for the home,

particularly for their child (Elsea, 2001; Snow et al., 1991). While current research does

not pinpoint an exact education level in which these differences begin to appear, it does state that maternal education level, rather than paternal education level, is a better predictor of children's reading level and school achievement (Snow et al., 1991). Studies have indicated that a mother's education level is related to how she thinks and behaves toward her children, how involved she is in their education, and what types of expectations and aspirations she has for them.

Research has concluded that there are mixed gender differences in literacy rates. For example, many believe that because, stereotypically, girls more often exhibit internalizing behaviors, they would enjoy reading more and parents would be more likely to engage in learning activities with them. Dickinson and Tabors (2001) found this not to be true as well as other researchers (Hart & Risley, 1995). Some also argue that girls naturally experience earlier language development because they mature earlier. Furthermore, according to Chiu and McBride-Chang (2006) girls reported enjoying reading more than boys. However, there is also evidence that teachers in some schools are biased towards boys; they assume that boys are more likely headed for higher education, so they have lower expectations for the girls in their classrooms (Snow et al., 1991). In a study that surveyed and assessed reading comprehension in over 199,000 students in 43 countries, adolescent girls scored higher than adolescent boys on reading comprehension (Chiu & McBride-Chang, 2006). However, in the 43 countries assessed, boys were more likely to be poor readers than girls (as measured by reading comprehension).

Research also indicates that racial minorities perform lower on measures of literacy (Burns et al., 1999; Dickinson & Tabors, 2001; Hart & Risley, 1995). Natriello et al. (1990) reported that there is a vast majority of evidence documenting that African American and Hispanic children perform lower than Caucasian children in school, especially in reading, writing, and mathematics. In a study by Dickinson and Tabors (2001), minority children, specifically African American, biracial, and Hispanic, obtained significantly lower receptive vocabulary scores when compared to Caucasian children.

Research has suggested conflicting findings about how the demographic variables of SES, parental education level, gender, and ethnicity impact literacy. It is important that further research explicitly focus on these variables in order to reach conclusive findings.

Home environment variables. Research has revealed that there are variables of the home environment that impact literacy, such as participation in extracurricular activities (e.g. social, sporting, and volunteer events) (NEA, 2007); hours of television viewing (Burns et al., 1999; Hart & Risley, 1995; Snow et al., 1991); frequency of reading with parents (Bus et al., 1995; Sénéchal & LeFevre, 2002); parental teaching while reading (Sénéchal & LeFevre, 2002); children's attitudes towards reading (Burns et al., 1999); and early exposure to books in the home (Sénéchal & LeFevre, 2002). Research has reported that "good" readers are much more likely than nonreaders to visit museums, attend plays or concerts, volunteer and participate in charity work, exercise, play sports, and attend sporting events (NEA, 2007). Snow et al. (1991) noted that interacting with children by taking them on excursions and involving them in after-school activities has been related to literacy success.

There have been conflicting findings about television viewing. Some researchers encourage parents to allow their children to watch educational shows, such as Sesame Street, because they teach children language and they provide parents and children with more topics to discuss during reading time (Burns et al., 1999; Hart & Risley, 1995). Others say television viewing time should be limited because television time correlates negatively with academic achievement and it limits the time that children could be doing more activities outside of the home. Participating in activities outside of the home has been found to have a positive correlation with school achievement (Snow et al., 1991).

Sénéchal and LeFevre (2002) found that storybook reading with children in the home is related to children's receptive language development. Storybook reading has been found to be an early predictor of phonological awareness, a skill demonstrated by the National Early Literacy Panel (NELP) to predict later literacy success. Moreover, Bus et al. (1995) found that frequent book reading with preschoolers is related to language growth, emergent literacy, and reading achievement. Parental teaching of sounds, letters, words, and writing during reading is directly related to early literacy skills in children and has increased over the past 15 years (Sénéchal & LeFevre, 2002; Tabors, Snow, & Dickinson, 2001). Engaging children in enriched conversations during book reading sessions and connecting with them by asking questions about a story during reading time are habits parents should have in order to link reading together to the development of early literacy skills (Tabors, Snow, & Dickinson, 2001).

Research has indicated that it is important for parents to encourage their children to have positive attitudes towards reading; reading should be a source of enjoyment. Burns et al. (1999) recommended creating a warm atmosphere around reading activities, being very responsive to children when they ask questions or make remarks about stories, making literacy part of playtime so it is something the child will look forward to, letting the child choose the books the family reads together, and taking children to the library often. Chiu and McBride-Chang (2006) stated that students who enjoy reading will tend to be better readers relative to students who do not enjoy reading.

Additionally, it has been confirmed that children's exposure to books in the home is directly related to reading ability in the early elementary grades (Sénéchal & LeFevre, 2002). The recent study by Chiu and McBride-Chang (2006) that assessed reading comprehension in over 199,000 students in 43 countries obtained similar results with older children; exposure to books in the home is independently associated with reading achievement in adolescent students. There are other variables and individual characteristics that impact literacy, such as learning disorders, neurological and cognitive disabilities, traumatic brain injuries, and many others. However, these are beyond the scope of this work and will not be investigated or discussed here.

Educators began to implement literacy programs in schools after the release of the National Reading Panel's Report, which helped open the public's eyes to the importance of reading programs and foundational reading skills. Additionally, the NELP released reports that analyzed results from around 200 studies that have evaluated different types of early literacy programs. Findings from the NELP indicated that there are specific

skills linked to later literacy in children and certain practices by adults that can help

children develop literacy skills.

The National Reading Panel

In 1997, Congress asked the Director of the National Institute of Child Health and

Human Development (NICHD), and the Secretary of Education, to convene a national

panel on reading (NICHD, 2000). The National Reading Panel (NRP), which included

14 people (represented by leading scientists in reading research, representatives of

colleges of education, teachers, educational administrators, and parents), was asked by

Congress to assess the status of research-based knowledge about reading, including the

effectiveness of various approaches to teaching children to read. This research focused

on the following areas: Alphabetics, including the issues of phonemic awareness

instruction and phonics instruction; Fluency; Comprehension, including vocabulary

instruction, text comprehension instruction, comprehension strategies, and teacher

preparation; emphasizing Teacher Education and Reading Instruction; and Computer

Technology and Reading Instruction.

The NRP concluded that teaching phonemic awareness, which is the ability to

distinguish the distinct sounds associated with letters, to children significantly improves

their reading, specifically in the areas of phonemic awareness, reading, and spelling,

when compared to instruction without phonemic awareness (NICHD, 2000). The Panel

determined that guided repeated oral reading has a significant and positive impact on

word recognition, reading fluency, and comprehension for students of all ages. However,

the Panel was unable to determine if independent silent reading, as the only type of

reading instruction, improves reading fluency. They concluded that more research is

needed to understand the specific influences that independent silent reading practices

have on reading fluency.

In terms of reading comprehension, the Panel concluded that vocabulary should

be taught both directly (e.g. using repetition and multiple exposures) and indirectly (e.g.

instruction that is engaging and involves task restructuring) (NICHD, 2000). Repetition

and seeing vocabulary words several times is also important. Learning in rich contexts

(e.g. contexts that are age- and ability- appropriate for the students), incidental learning

(e.g. by listening to others speak), and the use of computer technology (e.g. using

educational computer software) all help children develop larger vocabularies. They

reported that a combination of methods, rather than a single teaching method, leads to the

best learning.

The Panel's research suggested that reading instruction is complex. Children

enter classrooms with different levels of preparation, as do their teachers. In addition,

learning to read requires a combination of skills, including phonics, phonemic awareness,

fluency, and text reading comprehension skills (NICHD, 2000). The Panel's findings

demonstrated that learning phonics skills is critical for positive reading development.

Not all children learn in the same way, and one strategy does not work for all children.

So, the best results will be achieved when direct instruction is combined with the

development of other skills, and when teachers are able to use a combination of direct

instructional strategies to achieve those skills. They suggested combining school

instruction with interaction with the parent at home would likely create more positive

results. Finally, it was recommended that future research that determines which types of

instruction yield the highest literacy learning rates should be investigated and emphasized in teacher training programs.

The National Early Literacy Panel

Five years after the establishment of the National Reading Panel, the National Institute for Literacy organized its own panel to investigate current early literacy research. In 2002, the NELP was organized to conduct a synthesis of the scientific research on the development of early literacy skills in children aged zero to five (National Institute for Literacy, 2009). The main purpose of the nine-member panel was to synthesize research to contribute to decisions in educational policy and practice that affect early literacy development and to determine how teachers and families could support young children's language and literacy development.

Literacy skills. The identification of certain skills and abilities was found to be linked to later literacy success. The NELP labeled these "conventional literacy skills" (National Institute for Literacy, 2009, p. vii). The NELP found that the use of these skills was evident within all literacy practices, and each had a moderate to large predictive relationship with later literacy success: alphabet knowledge, phonological awareness, rapid automatic naming of letters or digits, rapid automatic naming of objects or colors, writing, and phonological memory.

The NELP and other researchers offered recommendations of how adults, whether they are teachers or parents, can help children become successful readers, even if they are considered to fall within a high risk group (e.g. low SES, minority status) (Burns, et al., 1999; Dickinson and Tabors, 2001; Elsea, 2001; Lonigan et al., 1999; National Institute for Literacy, 2007; Regalado, Goldenberg, & Appel, 2001). A 2007 document for

parents by the National Institute for Literacy recommended that parents of toddlers read with their child everyday, motivate an interest in reading in their child (e.g. by showing them the benefits of reading or modeling reading behaviors for them), identify pictures in books by pointing and naming while also teaching the child to do this, have discussions throughout the day with their child, and encourage their child to draw and write. This document suggests that parents of preschoolers should help their child hear, say, and differentiate beginning sounds in words, help their child identify rhyming words, introduce words that are opposites, and talk about and look for different letters in books and out in public.   It also suggested that parents allow their child to choose their favorite books to create motivation to read, allow their child to pretend to read to them, discuss connections between stories and their life, ask questions throughout reading to ensure the child understands the story, and encourage their child to write even if their writing looks like scribbles.

Parents of kindergarteners are encouraged to pay attention to whether their child listens while being read to, if they can name and write shapes and letters, if they can identify sounds of words, recognize and make new rhymes, and can follow along in a book when read to. Additionally, they suggested that parents monitor their child's ability to use prior knowledge to understand new stories, whether their child can predict what will happen next in stories, knows the difference between real and fictional stories, tries to write letters and words, and can write their own full name and others' first names (National Institute for Literacy, 2007; Regalado et al., 2001).

Further, first graders' parents should identify whether their child knows all of the letters of the alphabet, knows the difference between letters and words, knows some punctuation marks and where sentences and paragraphs begin and end, can blend and break apart sounds of basic words, can sound out new words, can identify when common words are misspelled (such as have, we, etc.), can read and understand written instructions and first grade books, can read and revise their own writing, and use language with more control (National Institute for Literacy, 2007). While the NELP made multiple suggestions based on research findings, other researchers have come up with similar recommendations as well.

Recommendations from Other Researchers

Elsea (2001) noted particular home environment practices that affect children's literacy. She recommends that parents read to their children in their laps, as this allows the child to get a better view of the reading process, such as how the parent reads from the top of the page to the bottom and how their eyes move from left to right as they read. At all ages, Fiore (2001) recommended that parents take advantage of free resources at community libraries and read to and involve their children in activities which encourage the acquisition of early literacy skills, such as telling stories and singing songs. Children learn to read by reading themselves, so it is important that parents, especially those of at-risk children, obtain books for their children whether they are borrowed from a library or provided for them at no charge through a literacy program (Elsea, 2001). Lonigan et al. (1999) found that almost 50 percent of the low-income families in their study reported not having any alphabet books in their home, whereas less than 5 percent of the upper-class families reported not having alphabet books in the home.

There are also resource materials for parents, such as Burns et al.'s *Starting Out Right: A Guide to Promoting Children's Reading Success* (1999), which provide parents with activity ideas from songs to games, parenting tips, and book suggestions. Dickinson and Tabors (2001) suggested that parents choose a variety of books for their children, including picture books, chapter books, fiction and non-fiction, and rhyme books. They also urged parents to read books multiple times because, as a child becomes more familiar with a book, they will likely think of more questions and topics for discussion during reading time (Dickinson & Tabors, 2001). However, many parents may feel that literacy skills and early reading practices should be taught and held solely within the school.

Literacy in Schools

Historically, schools were responsible for addressing reading and literacy concerns. In fact, up until the 1990s, schools focused on standardized instruments to address reading problems, which ultimately did not tell school personnel anything (Gersten & Dimino, 2006). In the 1980s and 1990s, early identification of students with reading difficulties was not common. Typically, districts would wait until the end of second or beginning of third grade before determining that a student had significant disabilities in reading. By this point, children with moderate to severe reading difficulties were likely too far behind to ever reach grade-level reading ability. Additionally, early readiness screening measures in the 1970s and 1980s had a predictive validity of close to zero. This left teachers with limited options; as a result, children failed in reading.

Assessing Reading Problems Today

More recently, there have been a variety of processes employed in schools to determine if children have literacy difficulties. These range from yearly school-wide assessment methods that have set benchmarks or cut-off points to identify struggling learners to individual assessments completed by teachers or other personnel on a weekly basis to monitor progress of certain children. The following paragraphs give an overview of the various more recent approaches to the assessment of reading problems.

Curriculum-based assessment. General dissatisfaction with norm-referenced tests and the need for more specific achievement measures due to changes in special education led to an increased interest in the curriculum-based assessment (CBA) of reading (Peverly & Kitzen, 1998). "CBA can be described as any data collection procedure that depicts student performance within the curriculum and is useful to guide instructional designs" (Christ, 2008, p.166). From these data, it is suggested that school psychologists assess the quality of the curriculum as a potential cause of some students' reading difficulties and not just students' performance in the curriculum (Peverly & Kitzen, 1998). In other words, CBA allows a school psychologist to identify if a classroom of children, or any child, is not scoring high on various individual reading skills. Based on the information provided by the assessment, the school psychologist can suggest that a teacher modify the curriculum and incorporate lessons on skills that are identified as difficult for children.

Early literacy assessment. Coyne and Harn (2006) stated that scientific advances in early literacy assessment have provided schools with access to critical information about students' foundational beginning reading skills, such as what their current ability level is, so that instructional modifications or interventions can be specifically developed for that child. They described a comprehensive assessment system, Dynamic Indicators of Basic Early Literacy Skills (DIBELS), which was developed to assess essential beginning reading skills, specifically initial sound fluency, letter naming fluency, phonemic segmentation fluency, nonsense word fluency, and oral reading fluency. They noted that linking assessment and instruction allows schools to dramatically increase the number of students who become successful readers in earlier grades.

They found that, when using DIBELS, data from ongoing assessments reinforces teachers' efforts because teachers see tangible evidence of student progress which, as a result, increases the social validity and perceived importance of systematic reading instruction and intervention (Coyne & Harn, 2006). This is important. This is most likely one of the main reasons teachers are compliant with this assessment method; they are seeing results throughout the semester and can determine if an intervention is working within weeks.

Beginning in the 2004-2005 school year, North Carolina received approximately $160 million over a five-year period for a new initiative called North Carolina's Reading First (NCRF), which has the main goal of ensuring that all children in North Carolina learn to read well by the end of the third grade (North Carolina Public Schools, 2004). In the 2005-2006 school year, over 28,000 students in 98 schools, including 4 charter schools, participated in the Reading First program. North Carolina Public Schools hope

to accomplish the NCRF initiative's goal by applying scientifically-based reading

research to reading instruction in the areas of phonemic awareness, phonics, fluency,

vocabulary development, and text comprehension in all North Carolina schools.

DIBELS assessments are currently administered at least three times during the

school year for students in grades kindergarten through second in all North Carolina

Public Schools in order to screen for students' current stages of reading development

(North Carolina Public Schools, 2005). DIBELS assessments provide a comprehensive

assessment of early reading skills. These assessments will be used in the current program

review. It is recommended that an assessment be completed within the first six weeks,

midyear, and within the last month of the school year. These assessments provide

information about the progress of each student for instructional modifications and early

intervention, provide next-year teachers with information about the statuses of each of

their incoming students, inform parents about the status of their children relative to grade

level standards at the end of the year, and provide the school and school district with

information about the achievement statuses and progress of groups of students in grades

kindergarten, first, and second. However, once these literacy deficits are recognized in

children, school personnel and parents must determine the most appropriate method of

intervention in order for students to begin to make progress. The following sections

discuss specific intervention programs.

Interventions for Reading Problems

Title I/Chapter I. Title I, the largest compensatory program funded by the federal

government, was first introduced in the 1960s (Natriello et al., 1990). The name was

changed to Chapter I in 1981. The basic premise of the program is that academic

performance is related to factors, such as race and SES. Funds are distributed to public

schools based on the number of school-aged students from low-income families they

serve mostly in preschool through the eighth grade. Chapter I funds are distributed to

help the children with the greatest economic *and* achievement needs. Chapter I provides

funding for developing special curricula that enhance cognitive skills, particularly in

reading, writing, and math; providing classroom aides; and improving health and

nutritional services.   It also funds the recruitment and training of teachers that specialize

in teaching disadvantaged children. Natriello et al. defined disadvantaged children as

those who are disadvantaged in terms of family characteristics (e.g. a family that fails to

expose the child to an elaborated language and fails to set school-related expectations for

the child, such as learning to read); personal characteristics (e.g. health or medical

handicaps that prevent the child from learning at the average rate); social group

characteristics (e.g. low SES and being part of a minority group that has experienced

social and economic discrimination); or educational characteristics (e.g. a poor or

inadequate educational background due to belonging to an inadequate school and having

under-qualified teachers).

There are controversial opinions surrounding Chapter I mostly due to the

variability in its implementation. There are multiple ways that the program can be

implemented. Techniques for implementation range from a child being pulled from a

classroom for a specified period of time each day to receive one-on-one reading

instruction with a qualified Chapter I teacher to a school-wide academic intervention for

many children (Natriello et al., 1990). Furthermore, the largest evaluation of the

effectiveness of Chapter I, called the Sustaining Effects Study, which took place from

1975 to 1982, found that of roughly 120,000 students used in the study, disadvantaged

Chapter I students achieved statistically significant gains in math and reading; however,

the more disadvantaged the child, the longer they stayed in the program. Unfortunately,

Natriello et al. reported that many Chapter I programs are characterized by "the fade-out

phenomenon" in that cognitive gains are greater in the earlier years, followed by a sharp

decline or disappearance of program effects.

An evaluation of 66,000 students completed by the U.S. Department of Education

in 1985, which used standardized achievement data, found the same results (as cited in

Natriello et al., 1990). Another evaluation completed by the National Institute of

Education, which was more comprehensive than previous evaluations of Chapter I, used a

standardized test to measure effects of the program across 400 classrooms in 14 school

districts and found similar results. However, the authors and other researchers in the field

questioned the results of the evaluation as they stated that their results were often plagued

by multiple variables, such as variability in instructional programs, lack of cooperation

between evaluation teams and school systems, unreliable data, flawed methodologies,

and poor monitoring of services.

Nevertheless, research has demonstrated that while Chapter I does not actually

meet its goal of assisting the most disadvantaged children, it does improve the math and

reading achievement of the moderately disadvantaged, or students with less poor

academic backgrounds (Natriello et al., 1990). Oftentimes, these moderately

disadvantaged students, because they begin the program with a stronger academic base,

show rapid gains in their achievement and are "prompted out" of the Chapter I program

after a short period of time, sometimes even a year. However, some gains have been seen

in the more disadvantaged children's scores, particularly in math, but it has little effect on the achievement gap between them and the advantaged students. Furthermore, Chapter I has been said to not be cost effective, as there is not a relationship between funds dispersed and achievement. Much of the research does not give an overall estimate of the actual number of children who have participated or are currently participating in Chapter I, but the research has continually reported that the program does show promising results for many disadvantaged students in earlier grades.

Other Educational Factors that Affect Literacy

Still, research suggested other factors that affect students' literacy. One study suggested that researchers need to consider the quality of education that children are receiving (Whitehurst, Zevenbergen, Crone, Schultz, Velting, & Fischel, 1999). Low-income children are entering school with fewer early literacy skills and are enrolled in schools with a lower SES mix of children. In addition to this, these teachers receive less pay and the quality of these children's education is lower. Nielsen and Monson (2001) noted that it is important that kindergarteners, especially those at-risk, experience enriched literacy environments at school. They found that many kindergarten teachers differ in the ways they teach and use their class time. Specifically, they found that teachers who focus more on literacy-related activities and teachers who spend more one-on-one teaching time with students have students who show higher gains in reading readiness. More surprisingly, the authors found that kindergarteners who had teachers who focused more on literacy-related activities (e.g. oral language, writing, reading/story time) showed higher gains than children with teachers who did not focus on literacy-related activities, even if they were from homes where exposure to a literate environment

is not likely to occur. This indicates that even disadvantaged children can develop important pre-literacy skills when the right environment is provided in the classroom (Nielson & Monson, 2001).

Additionally, an effective home-school relationship is crucial, especially in the early years of school, particularly kindergarten through second grade (Elsea, 2001). Snow et al. (1991) concluded that the reason for children's difficulties with early literacy development is not the result of a lack of school instruction or parent involvement, but most likely a combination of the two. School personnel need to help parents recognize and identify if a child has disabilities or other risk factors, such as cognitive impairment, hearing problems, speech impediments, attention problems, and socio-environmental factors (e.g. poverty, poor home literacy environments, and ineffective classrooms), and help parents understand interventions and services that will help their child reach his or her full potential (Regalado et al., 2001).

Instructional Practices

Current literacy research mentions various types of programs and interventions that attempt to target literacy problems today. The first is a code-focused intervention, which is designed to teach children skills related to cracking the alphabetic code that mainly focus on phonological awareness (National Institute for Literacy, 2009). The second approach involves preschool and kindergarten programs, which are programs that incorporate a particular curriculum that targets early literacy. Finally, language enhancement interventions are instructional efforts aimed at improving young children's language development.

Code-focused interventions. Code-focused interventions are commonly implemented within preschool or kindergarten settings in addition to the educational activities normally used in the setting and involve training children, either individually or in small groups, to identify or manipulate sounds in words (National Institute for Literacy, 2009). Research by the NELP showed that the majority of the code-focused interventions evaluated had significant effects on measures of conventional literacy, such as reading and spelling; and on measures of precursor literacy skills, such as phonological awareness and alphabet knowledge.

Preschool and kindergarten programs. Each of the preschool and kindergarten programs researched by the NELP are programs that have focused on children in poverty or who are at-risk for educational or social failure, and they have included a broad range of program services, including education, nutrition, health and social services, home-visiting interactions, and parental support (National Institute for Literacy, 2009). Most of those researched by the NELP were found to be significantly related to measures of readiness, or being prepared for school entry, and spelling. Examples of commonly implemented preschool and kindergarten programs are the Perry Preschool Project and the federally funded Head Start program.

Language enhancement interventions. The NELP evaluated the effectiveness of language enhancement interventions designed to explicitly and directly improve young children's language skills, in terms of vocabulary development, syntactic sophistication, listening comprehension, and other similar aspects of language development (National Institute for Literacy, 2009). The NELP found that of all the interventions evaluated, every one of them successfully improved children's oral language development. There

were no demographic effects within the programs evaluated; all ages, ethnicities, and population densities of children benefited equally. Additionally, of the interventions evaluated, the ones that included children younger than three years of age had a greater effectiveness; however, the specific type of intervention (e.g. play-based or contextually based) did not make a significant difference on the effects found.

Next, two popular approaches currently used will be discussed: shared-reading interventions and parent and home programs. Each of these instructional practices involves child-adult interaction. The shared-reading and parent and home strategies have been incorporated into some of the more popular pre-literacy programs. Research for both methods has reported promising results.

Shared-reading interventions. The NELP defined shared-reading as a reading experience in which there is an adult reading a book with or to a child or group of children. This includes parents reading a book with their child or a teacher reading a book to a classroom of children (National Institute for Literacy, 2009). Shared-reading interventions vary greatly in the skills that they focus on; however, the one aspect that they each have in common is that they involve an adult and a child. It was concluded that there is no difference in the effectiveness based on how shared-reading interventions are delivered, whether it be the parent, teacher or both reading with the child; all are equally successful.

Shared-reading practices are highly recommended to promote early literacy development and these activities are often recommended as the single most important thing adults can do to promote the emergent literacy skills of young children (Bus et al., 1995; National Institute for Literacy, 2009). While the National Institute for Literacy

(2009) found that there were no major differences in the amount of time the

interventions took or the amount of training the adults had in the studies evaluated, a

study by Lonigan and Whitehurst (1998) found significant effects for children who were

read to by their parents at home or read to by their parents in combination with their

teachers compared to those who were only read to by their teachers. This study

indicates that parents can be as successful at teaching pre-literacy skills to their children

as teachers. Advanced training is not always necessary.

In a shared-reading study by Justice and Ezell (2002), results showed that

preschool children from middle-income households displayed significantly higher levels

of skill across all print awareness tasks (e.g. concept of word, alphabet knowledge, and

literacy terms) when compared to preschoolers from low-income households. Their

study also indicated that shared-reading with a print focus influences, "pre-literacy skills

specific to knowledge of contextualized print recognition and concept of word in written

language" (p.25). Another study by Justice and Ezell (2000), which instructed parents to

use nonverbal and verbal print-referencing behaviors in their reading sessions, led to

significant gains in children's print concepts, word concepts, and word segmentation

abilities. It is suggested that when parents read books with their children, they interact

with their child by asking questions and cuing them about words and other literacy

components (Justice & Ezell, 2002). Lonigan and Whitehurst (1998) suggested

discussing aspects of the books, such as analysis of characters or events, predictions of

upcoming events, and vocabulary.

Many newer shared-reading interventions include dialogic reading (DR), which is an interactive form of shared-reading in which the adult reader engages the child by asking them questions about the story, particularly using picture books, providing feedback and praise, and making it a point to keep the child at or beyond their current level of independent functioning (Huebner, 2000; National Institute for Literacy, 2009). This encourages the child to take on a more active role in the shared-reading experience, rather than being a passive listener. However, there is not one set way one should carry out the interactive reading experience; there are multiple questions that a parent can ask and many topics a parent can discuss with a child (Dickinson & Tabors, 2001).

Another study that compared the effectiveness of typical shared-reading and dialogic shared-reading for at-risk low-income preschool children found that while both interventions had positive effects on early literacy skills, particular results were found with each intervention (Lonigan et al., 1999). For example, this study reported that the children in the DR intervention had larger gains on a measure of descriptive use of language, compared to larger gains on measures of listening comprehension and alliteration detection found with the typical shared-reading intervention. The overall results from the study suggested that both interventions had a positive effect on phonological sensitivity as well.

Research has also shown evidence that shared-reading can promote growth in narrative skills which are seen less often in low-income children who have limited access to home literacy and verbal interactions with their caregivers (Zevenbergen et al., 2003). Huebner (2000) mentioned similar findings; she stated that those who received DR as an intervention showed positive effects on expressive language skills,

and she even noted that parents of children receiving this type of intervention reported less parenting stress after the intervention. The NELP did not find significant differences between studies that used DR and those that did not; thus, more research is needed to determine the effectiveness of this technique (National Institute for Literacy, 2009).

Based on the studies examined by the NELP, it appears that shared-reading interventions are equally effective for children who are at-risk for later academic difficulties and for children who are not at-risk (National Institute for Literacy, 2009). A meta-analysis by Bus et al. (1995) found the same results. However, studies that only involved children from low-SES families produced much larger effect sizes than studies that involved a combination of SES family categories (National Institute for Literacy, 2009). It has also been reported that interventions for children from the preschool-age and kindergarten-age are equally effective across these ages (Bus et al., 1995; National Institute for Literacy, 2009). This shows that shared-reading interventions appear to be just as effective for older children as they are for younger children. The studies evaluated by the NELP differed and overlapped greatly in the types of ethnicities included (National Institute for Literacy, 2009). Due to this limitation, the NELP was unable to determine which ethnicities, if any, moderated the impacts of the shared-reading interventions.

Shared-reading programs are said to be one of the best approaches to teaching early literacy skills in children; however, many of the studies that investigated these approaches have used qualitative data which measures parent and teacher opinions of students' progress (National Institute for Literacy, 2009). Thus, it is important that future

evaluations of shared-reading programs focus on quantitative data so that results are more meaningful and able to be compared. Overall, the NELP found that shared-reading interventions had moderate effects on measures of oral language, print knowledge, and writing (Bus et al., 1995; Lonigan & Whitehurst, 1998; National Institute for Literacy, 2009).

Parent and home programs. Parent and home programs use parents as "agents for intervention" (National Institute for Literacy, 2009, p. ix). Oftentimes, these programs involve teaching a parent specific techniques or strategies to teach their children early literacy skills. Findings from research studies have been said to demonstrate a link between supportive parental involvement (PI) and children's early literacy-related development. For instance, some research studies (e.g. Hart & Risley, 1995; Snow et al., 1991) suggested that children from homes in which parents engage their children in elaborated conversations, model the use of literacy, and engage their children in activities that promote basic understandings about literacy (e.g. shared-book reading) will have better-developed language and literacy skills than will children from homes in which these activities are less frequent (National Institute for Literacy, 2009). As one study stated, "… parents are both models of reading activity and their children's first teacher of language and basic concepts" (Cronan, Brooks, Kilpatrick, Bigatti, & Tally, 1999, p.432). However, the variability of the type of parent or home programs investigated was large, so the NELP did not conclude which particular type of parent or home program is most beneficial. Nonetheless, results show that reading at home does produce promising results in relation to early literacy skills in children.

Several national efforts, such as Reading Is Fundamental and Reach Out and Read, and several community programs have focused on providing free books for parents and children to further promote regular parent-child book reading (National Institute for Literacy, 2009). One study examined whether books were provided in interventions. Studies that provided books for children and families showed larger effect sizes; however, the differences were not large enough to be significant (National Institute for Literacy, 2009; Snow et al., 1991). These efforts have shown some evidence, according to national surveys, that indicates an increase in parent-child literacy activities (e.g. routine book reading, story-telling, and teaching letters, words, and numbers) among families with preschoolers (Tabors, Snow, & Dickinson, 2001). However, the NELP found that these increases were not statistically significant (National Institute for Literacy, 2009).

Some educators consider parent education an integral component of early childhood programs; however, reports of their effectiveness vary greatly (National Institute for Literacy, 2009). Many of the studies looking at parent and home programs stated that these programs are initiated with the assumption that successful PI programs not only help parents understand the importance of their role as first teachers, but also equip parents with both the skills and the strategies to foster their children's language and literacy development.

A study by Cronan et al. (1999) looking at how well a literacy intervention's results were maintained after the original intervention was finished, concluded that booster sessions are sometimes necessary, especially when working with low-income families. Cronan et al. noted that alternative strategies should be taught to low-income

families, as they help parents maintain their children's interest. Additionally, similar to

the shared-reading interventions discussed earlier, Cronan et al. found that the

distribution of free books for families also helped serve as an extra incentive for

regular reading in families.

Parent and home programs have shown statistically significant effects on

measures of oral language (including vocabulary), cognitive ability, memory, and writing

(National Institute for Literacy, 2009). Similar to the shared-reading interventions

mentioned earlier, the effects of the home and parent programs appear to be unaffected

by variations in children's ages (birth to age 5) and demographic characteristics (SES,

ethnicity, and population density) of families. Because there is such variability in the

types of interventions used (or the skills specifically focused on) in parent and home

programs, it is unknown which type of specific intervention yields the best results;

however, research has demonstrated that, overall, all parent and home programs show

promising results at least on oral language and cognitive abilities.

The Parent-Child Home Program. The Parent-Child Home Program (PCHP) is an

example of an early childhood literacy and school readiness program. The PCHP

strengthens families and prepares children for academic success through intensive home

visiting (Jacobson, 2002). The program emphasizes the importance of quality parent-

child verbal interactions to promote cognitive and social development in children. The

PCHP focuses on children who are deemed to be at the greatest risk for failure in school,

those with low-income parents who have a limited education.

The program, which originated in New York, now serves 2- and 3-year-old children and their families in six states (Jacobson, 2002). While Jacobson did not indicate how many children have participated in the program, she stated that many of the participating states have as many as 20 to 30 PCHP program sites. Research has evidenced that first-grade children who participated in the PCHP scored higher on measures of cognitive ability. Additionally, a longitudinal study released in 1998 that looked at the effects of the PCHP program in Massachusetts found that 84 percent of participating children went on to graduate from high school, compared to 54 percent of children in a control group who had not participated in the PCHP. However, there is a lack of conclusive, quantitative research on this program, which has been in existence for forty years. More research is needed to determine if the program is effective and if there are confounding variables (e.g. ethnicity, SES) that contribute to its reported success.

Reach Out and Read. Reach Out and Read (ROR) is a national, nonprofit children's literacy program that works with medical providers to provide books for low-income patients aged 6 months to 5 years at medical check-ups and advise parents about the importance of reading (Reach Out and Read National Center, 2009). Their press release stated that peer-reviewed studies indicate that parents who get books and literacy counseling from their doctors and nurses are more likely to read to their young children, read to them more often, and provide more books in the home.

Additionally, the program emphasized that low-income children exposed to the program have shown improvements in language development, a critical component of school readiness, and score significantly higher on vocabulary tests (Reach Out and Read National Center, 2009). While the actual number of participating children is unknown,

over the past twenty years, ROR is said to have distributed twenty million books to 25 percent of U.S. children in poverty and trained 50,000 doctors. The National Institute for Literacy (2009) stated that one study, which evaluated the effectiveness of ROR, did not directly assess literacy skills, but instead assessed the program in a qualitative way with satisfaction scores (e.g. parents estimated their children's vocabulary performance). Nonetheless, results indicated that the program has a significant effect on oral language.

Imagination Library. Dolly Parton's Imagination Library program started in Tennessee in 1996. The community-funded program mails an age-appropriate book to participating children under the age of five each month at no charge. According to the Imagination Library website, to start a local Imagination Library program, a community must make the program accessible to all preschool children in its area (Dolly Parton's Imagination Library, 2009). Children and their families can register for the program online or visit their local community program site. The community pays for the books and mailing, promotes the program, registers the children, and enters the information into the database. Once a family's information is entered into the database, the Dollywood Foundation takes over and manages the system to deliver the books to the home. According to a review by the program, in 2007, 732 communities in 43 states, the District of Columbia, six Canadian provinces, and one Canadian territory participated (Dolly Parton's Imagination Library, 2008). Currently, 420,000 children receive free books each month. The review stated that, in 2007, just under 4.5 million books were mailed.

The Tennessee Board of Regents (2008) surveyed 153 pre-kindergarten teachers about the preparedness of students who had participated in Imagination Library in 2007 using an Internet-based survey and reported that, overall, teachers rated the students who had participated as more prepared at the beginning of the school year; more able to stay on task; more able to look at, tell, answer questions about, and enjoy stories; better at following directions and speaking in complete sentences; and achieving higher levels of reading, thinking, speaking, and social skills, compared to students who had not participated. These appear to be impressive findings; however, it should be noted that teachers were told which students had participated beforehand. These findings which conclude the success of the program may be more convincing had the researchers assessed participants using a blind design (e.g. asked teachers to rate all students in their classes on these variables without knowing program participation status) or utilized quantitative data, such as reading scores or other reading measures to observe reading areas that are specifically impacted.

Beginning with Chapter I in 1965, there have been a variety of attempts to address literacy in children. The PCHP, ROR, and Imagination Library are examples of shared-reading or parent and home early literacy programs that have proved to be at least somewhat effective in improving children's literacy skills. The Tales for Tots Program, the focus of this research, takes a similar approach to each of these as it focuses on providing books for children at no charge in order to help them establish early literacy skills.

Tales for Tots

One of the more widely-used early intervention approaches is shared-reading programs that have been proven to impact children's early literacy skills (National Institute for Literacy, 2009). The Tales for Tots program of Macon County, North Carolina, which began in October of 2001, is an example of one of these shared-reading early literacy programs (Friends of Macon County Public Library, 2008). This program mails a free book each month to each participating child from birth to age six. To participate, the child must be born in Macon County, apply for the program by contacting the Macon County Public Library, and be below the age of six. This program is in its seventh year with its initial group of participants entering second grade this year.

Tales for Tots is similar to ROR and Imagination Library as it targets a similar range of ages and provides books to children and their families at no cost. However, unlike ROR, which requires families to have an appointment with a medical professional at a participating ROR location, Tales for Tots does not require families to leave the comfort of their own home to participate. Books are mailed to the home in the child's name so the child is able to experience the new excitement of getting their very own piece of mail. This helps to encourage motivation to read, unlike ROR which could have negative emotions associated with the child's new book due to the child being at the doctor's office when they receive it.

The Tales for Tots program is different from Imagination Library in many ways. The Tales for Tots program is based in one community, rather than in one community among many as part of a larger multi-state organization. Additionally, books by various authors from multiple publishers for the Tales for Tots program are selected based on

children's ages by two individuals at the local public library. Imagination Library often

uses the same books every year, which can be disappointing for families with more than

one child as they will most likely receive many repeats of books in their home.

Imagination Library books are also from one individual publisher, so the variety of book

topics and formats is limited compared to the variety in Tales for Tots books.

       The Tales for Tots program was funded by an endowment from the Pettway

family. Tales for Tots is currently administrated by two individuals housed at the Macon

County Public Library. The two individuals are the librarian, who has a college degree

specializing in children's literature, and an assistant, who has gained much knowledge

from working with the librarian and the Tales for Tots program during its existence,

employed by the Macon County Public Library. The books from various publishers

provided for participants in the program are pre-selected by the two individuals in charge

based on the book's age appropriateness, the credibility and reputation of the author, the

book's durability (e.g. only hardbound books are used for the program), and the opinion

of these two individuals based on past children's reactions to them. Once children

"graduate" from the program, they are given a party at the local library to celebrate their

achievement and are provided with a certificate that states they are now ready for school.

In March of 2008, an average of 525 books was mailed out monthly to Macon County

participating children (Friends of Macon County Public Library, 2008).

       Tales for Tots incorporates several components of successful literacy programs,

such as providing free books for the home, encouraging shared-reading among parents

and children, and targeting children at the preschool age. According to the NELP,

repetition and seeing vocabulary words several times, learning using age- and ability-

appropriate contexts, parent-child literacy interaction at home, and incidental learning (listening to someone speak or read) have been found to have a positive impact on the development of early literacy skills (NICHD, 2000). The Tales for Tots program allows for each of these activities to take place within the home; thus, it could be assumed that participation in the Tales for Tots program could directly impact children's pre-literacy skills.

Evaluating Tales for Tots. Unlike the other specific literacy programs mentioned, the Tales for Tots program has never been evaluated. The current research is designed to complete a summative evaluation of the Tales for Tots program. Unlike a formative evaluation, which evaluates a program before or while it is being implemented, this project will evaluate the program as it has existed throughout the past seven years. The main purpose of this research is to examine the effectiveness of the Tales for Tots Program by examining the DIBELS scores of participants versus non-participants.

STATEMENT OF THE PROBLEM

Researchers have stated that there are multiple skills that must be developed, preferably at an earlier age, to ensure later literacy development in individuals. Among these skills are vocabulary, alphabet knowledge, phonological awareness, letter and word recognition, decoding, print knowledge, oral language, comprehension, and writing, all of which impact one's ability to learn to read (Bus et al., 1995; Hart & Risley, 1995; Huebner, 2000; Justice & Ezell, 2000; Justice & Ezell, 2002; Lonigan et al., 1999; Lonigan & Whitehurst, 1998; NICHD, 2000; National Institute for Literacy, 2009; Snow et al. 1991). Additionally, researchers have identified two sets of variables that also influence children's likelihood of developing literacy skills early, demographic and home environment variables. Examples of demographic variables include SES, parent education level, gender, and ethnicity, while examples of home environment variables deal with activities, such as participating in extracurricular activities, hours spent viewing television, frequency of reading with parents, parental teaching during reading, and children's exposure to literacy materials in the home. However, overall, research has reported many contradicting and inconclusive findings when investigating the actual relationships between these variables and literacy.

Furthermore, research has demonstrated that not being able to read puts individuals at a disadvantage in a number of areas, including finding jobs, being uninformed about the world, being more likely to be negatively involved with the law, and dropping out of school (NEA, 2007). For this reason, schools and researchers have developed programs to target early literacy. Although these early literacy programs have

been developed, many of them have not yielded very promising results. It is imperative that research be completed to determine which variables are most correlated with literacy, so better programs can be established.

Prior to this study, the Tales for Tots program had not been evaluated. This study compared differences among DIBELS scores between the kindergarten, first, and second grade Tales for Tots participants and non-participants. This allowed the effectiveness of the Tales for Tots program to be determined, so possible changes can be made allowing participating children and families to be the most successful at developing early literacy skills.

The experimental group included participants in the Tales for Tots program, and the control group was those who did not participate in the program. The primary purpose was to determine whether participation in the program led to higher scores on DIBELS assessments. It was hypothesized that the children in kindergarten who participated in Tales for Tots would have higher scores than those in kindergarten who did not participate in Tales for Tots on all kindergarten DIBELS measures (initial sound fluency, letter naming fluency, phonemic segmentation fluency, and nonsense word fluency). The second hypothesis purported that the children in first grade who participated in Tales for Tots would have higher scores than those in first grade who did not participate in Tales for Tots on all first grade DIBELS measures (phonemic segmentation fluency, nonsense word fluency, and oral reading fluency).

The third hypothesis proposed that kindergarten and first grade Tales for Tots participants who were read to by their parents everyday would have higher DIBELS scores than kindergarten and first grade Tales for Tots participants who were not read to

by their parents daily on all DIBELS measures (initial sound fluency, letter naming fluency, phonemic segmentation fluency, nonsense word fluency, and oral reading fluency). The final hypothesis investigated children's enjoyment.   It was hypothesized that children in the program would report enjoying reading more than their peers who did not participate. Enjoyment was measured by qualitative responses provided by parents.

METHOD

Participants

Participants included 293 children in kindergarten through the second grade in the Macon County, NC School System. The participants were divided into two groups: those that participated in Tales for Tots ($n = 73$) and those that did not ($n = 212$). Eight surveys were omitted as they did not include Tales for Tots participation status. There was not a statistically significant ($\chi^2 = .09, p = .76$) difference between the Tales for Tots participants and the non-Tales for Tots participants with regard to gender. For this reason, information about gender of the sample has been collapsed across groups. The sample included 143 (49%) males and 140 (48%) females, (10 surveys (3%) did not include a response for gender).

There was not a statistically significant ($\chi^2 = 6.0, p = .20$) difference between the Tales for Tots participants and the non-Tales for Tots participants with regard to race. For this reason, information about race of the sample has been collapsed across groups. The sample was 79% Caucasian ($n = 230$), 1% African American ($n = 4$), 0.7% American Indian ($n = 2$), 0.3% Asian ($n = 1$), and 14% Hispanic ($n = 41$), (15 surveys (5%) did not include a response for race). There also was not a statistically significant difference ($\chi^2 = 6.0, p = .30$) between the Tales for Tots participants and the non-Tales for Tots participants with regard to maternal education. For this reason, information about maternal education has been collapsed across groups.

Table 1

Maternal Education Level for Participants

Maternal Education Level	Total of Sample	Percentage of Sample
Some High School	29	9.9%
Completed High School	35	11.9%
Some College	106	36.2%
Associate's Degree	50	17.1%
Bachelor's Degree	37	12.6%
Graduate Degree	15	5.1%
No Response	21	7.2%

There was not a statistically significant difference ($\chi^2 = 5.2$, $p = .40$) between the Tales for Tots participants and the non-Tales for Tots participants with regard to paternal education. For this reason, information about paternal education has been collapsed across groups.

Table 2

Paternal Education Level for Participants

Paternal Education Level	Total of Sample	Percentage of Sample
Some High School	45	15.4%
Completed High School	76	25.9%
Some College	78	26.6%
Associate's Degree	34	11.6%
Bachelor's Degree	22	7.5%
Graduate Degree	12	4.1%
No Response	26	8.9%

There also was not a statistically significant difference ($\chi^2 = 8.2$, $p = .15$) between the Tales for Tots participants and the non-Tales for Tots participants with regard to maternal occupation. For this reason, information about maternal occupation has been collapsed across groups.

Table 3

Maternal Occupation Level for Participants

Maternal Occupation Level	Total of Sample	Percentage of Sample
Managerial or Professional	93	31.7%
Technical or Clerical	56	19.1%
Skilled Worker	10	3.4%
Manual Labor	6	2%
Food Service, Housekeeping, or Factory	33	11.3%
Unemployed	69	23.5%
No Response	26	9%

There was not a statistically significant difference ($\chi^2 = 5.7$, $p = .33$) between the Tales for Tots participants and the non-Tales for Tots participants with regard to paternal occupation. For this reason, information about paternal occupation has been collapsed across groups.

Table 4

Paternal Occupation Level for Participants

Paternal Occupation Level	Total of Sample	Percentage of Sample
Managerial or Professional	47	16%
Technical or Clerical	33	11.3%
Skilled Worker	122	41.6%
Manual Labor	24	8.2%
Food Service, Housekeeping, or Factory	20	6.8%
Unemployed	10	3.4%
No Response	37	12.7%

There was not a statistically significant difference ($\chi^2 = 10.9$, $p = .09$) between the Tales for Tots participants and the non-Tales for Tots participants with regard to school. For this reason, information about school has been collapsed across groups.

There was, however, a statistically significant ($\chi^2 = 14.5$, $p = <.01$) difference between the Tales for Tots participants and the non-Tales for Tots participants with regard to daily reading. For this reason, information about daily reading of the sample will be presented by group.

Table 5

Daily Reading Status for Participants

Daily Reading Status	Tales for Tots Participants	Non-Tales for Tots Participants	No Response
Read Daily	43 (58.9%)	83 (39.1%)	1 (12.5%)
Did not Read Daily	30 (41.1%)	128 (60.4%)	4 (50%)
No response	0	1 (0.5%)	3 (37.5%)

Finally, there was also a statistically significant ($\chi^2 = 33.6$, $p = <.01$) difference between the Tales for Tots participants and the non-Tales for Tots participants with regard to grade. For this reason, data will be presented independently for kindergarten and first grade.

Table 6

Participant Grade Levels

Grade	Tales for Tots Participants	Non-Tales for Tots Participants	No Response
Preschool	0	5 (2.4%)	1 (12.5%)
Kindergarten	36 (49.3%)	72 (34%)	1 (12.5%)
First	31 (42.5%)	44 (20.8%)	3 (37.5%)
Second	5 (6.8%)	85 (40%)	0
No response	1 (1.4%)	6 (2.8%)	3 (37.5%)

Materials

All participants completed the Home Reading Survey (HRS) (Randolph &

Chamberlain, 2009) (Appendix A.) and scores from DIBELS assessments were obtained

from the Macon County Public Schools. The HRS included questions to assess

demographic variables, (such as sex, ethnicity, school, number of siblings, and parent's

education and occupation), and family reading habits. There were specific questions

relating to reading, such as does the parent show the child the words as they read, does

the child ever pretend to read, and does the child see his or her parent(s) read. Questions

concerning local library use and participation in the Tales for Tots program were also

included. Finally, questions about other family habits were assessed, such as television

viewing and activities in which the child typically participated.

Scores were obtained from the DIBELS benchmark assessments conducted in

Macon Schools at the beginning, middle, and end of each school year. The DIBELS

assessments include measures of various critical early reading skills, such as Initial

Sound Fluency (ISF), Letter Naming Fluency (LNF), Phonemic Segmentation Fluency

(PSF), Nonsense Word Fluency (NWF), and Oral Reading Fluency (ORF). DIBELS

measures consist of short, timed, one-on-one probes administered by a trained school

staff member, such as a teacher or school psychologist.

The individual administering the probes asked the child to read or pronounce as

many words or sounds as possible on the probe placed in front of them. Generally, one to

five probes are completed in one assessment. Probes are scored based on correctly

pronounced sounds, letters, phonemes, and words. Scores for the different measures

range from 0 to the maximum number of sounds, letters, phonemes, or words that are

possible on that particular probe. The median of the probes administered is determined

and benchmark goals released by the DIBELS publisher are used by school personnel to

identify a student's ability for each skill based on the score range his or her achieved

score falls within (Good & Kaminski, 2003).

Goals for each benchmark period are provided for each grade and score ranges are

listed for the following categories: At-risk, some risk, low risk, deficit, emerging, and

established (Good & Kaminski, 2003). It is suggested that the teacher use these category

labels in identifying which students need modifications made to their reading instruction.

ISF, measured only in kindergarten, measures a student's ability to identify,

isolate, and pronounce the first sound of an orally presented word (Good & Kaminski,

2003). Once the examiner produces a sound, they have the student find which of four

presented pictures begins with that sound and ask them to orally produce the beginning

sound for an orally presented word that matches one of the given pictures. The student's

response time is recorded, and the number of correct initial sounds given within a minute

is totaled to represent the student's score. LNF, which is measured in kindergarten and

first grade, is said to be a powerful indicator of a student's risk for reading failure. For

this measure, the student is asked to name as many uppercase and lowercase randomly

mixed letters as they can within one minute.

PSF, a direct measure of phoneme awareness, is assessed from the middle of the

year in kindergarten until the end of first grade (Good & Kaminski, 2003). Students who

are unable to take apart and pronounce the sounds of a three-phoneme syllable are

suspected to be exhibiting phonological processing difficulties, which is a warning sign

of reading difficulty. For this assessment, the examiner provides the student with a word

or syllable with three or four phonemes and asks them to say the individual sounds that make up the word. The score for PSF is the number of correct phonemes produced in one minute.

NWF, which is measured from the middle of the year in kindergarten through the beginning of second grade, measures a student's ability to link letters with sounds, also called the alphabetic principle, and use that knowledge to decode three-letter syllables that alone are nonsense words (Good & Kaminski, 2003). The child is presented with and asked to read randomly ordered vowel-consonant and consonant-vowel-consonant words. Their score is the number of letter-sounds correct in one minute.

Lastly, ORF, which is assessed from the middle of first grade through third grade, involves benchmark passages that measure accuracy as well as speed in oral reading in graded passages (Good & Kaminski, 2003). The examiner prompts the student to read each of three passages aloud for one minute each and computes the median correct words per minute from the three passages as the student's score.

The alternate form reliabilities for the DIBELS skill areas are ISF (.90), LNF (.98), PSF (.96), NWF (.98), and ORF (.90) (Kaminski & Cummings, 2008). The criterion-related validities for the DIBELS skill areas are ISF (.44-.60), LNF (.72-.98), PSF (.73-.91), NWF (.84), and ORF (.70-.80). Several studies which have investigated the psychometric soundness of the DIBELS skill measures have found strong, significant findings for all areas (Burke, Hagan-Burke, Kwok, & Parker, 2009).

Procedure

Administrators of the Tales for Tots program contacted researchers at Western

Carolina University (WCU) to evaluate the Tales for Tots program. Group meetings

were held with the Tales for Tots program developers, researchers at WCU, and a

representative from Macon County public schools. These individuals worked

collaboratively to evaluate the Tales for Tots program using data from grades

kindergarten through second. The HRS was developed based on the current reading

readiness research. Input from each of these individuals was used to refine the survey.

English and Spanish versions of the HRS were constructed by the researchers. DIBELS

were included as the reading readiness assessment, as these assessments are routinely

administered by the Macon County School System.

Survey packets including information about the purpose of this study, the HRS, as

well as a consent form which would allow participant information to be included in this

study (Appendix B Parent Consent Form.) were taken to schools and dropped off in

kindergarten, first, and second grade teacher's mailboxes. The teachers were instructed

to distribute the survey packets to their students to take them home to parents. Parents

were instructed to return the survey packets to their child's teacher within a week. WCU

researchers picked up the returned survey packets at the schools. A total of 400 surveys

were sent to the schools and 293 were returned, which yielded a return rate of 73 percent.

Of the forms completed, about 25 percent were from Tales for Tots participants, 72

percent were from non-Tales for Tots participants, and about 3 percent did not report

whether they had participated in the Tales for Tots program.

Scores for the students in grades kindergarten through second from the DIBELS assessments were obtained from the schools for each of the children whose parents completed surveys. Data was entered in a database using a computer statistics program. Names were not included in the computerized database. Furthermore, all surveys and scores were kept confidential in a secure location and utilized only by the team of individuals analyzing the data.

Analysis

Two 2 x 2 x 2 mixed model MANOVAs were run to investigate differences on reading scores from pre- to post-test based on group. The dependent variables were initial sound fluency (ISF), letter naming fluency (LNF), phonemic segmentation fluency (PSF), nonsense word fluency (NWF), and oral reading fluency (ORF). The independent variables were group (participant in Tales for Tots, non-participant in Tales for Tots), daily reading status (read daily, did not read daily), and pre-post test scores. Separate MANOVAs were run for each grade level since the specific reading measures and scores vary across grade level. Follow-up univariate ANOVAs were used to examine main effects and interactions on each dependent variable.

RESULTS

Two 2 x 2 x 2 mixed model MANOVAs were run to investigate differences on reading scores from pre- to post-test based on group for kindergarteners and first graders. The dependent variables were initial sound fluency (ISF), letter naming fluency (LNF), phonemic segmentation fluency (PSF), nonsense word fluency (NWF), and oral reading fluency (ORF). The independent variables were group (participant in Tales for Tots, non-participant in Tales for Tots), daily reading status (read daily, did not read daily), and pre-post test scores.

For the purposes of analysis, some variables were grouped. Responses of almost everyday, occasionally, and not everyday were combined, for the item asking how often parents read to their children so the numbers were balanced enough for the groups to be compared. This resulted in having two groups for analyses looking at daily reading: everyday and almost everyday/occasionally/not everyday. Also, due to limited sample sizes in the preschool and second grades, only kindergarten and first grade data were used for DIBELS analyses.

Results indicated that there were significant differences between groups for all DIBELS measures for both kindergarten and first grade. Across all DIBELS groups (ISF, LNF, PSF, NWF, and ORF), all kindergarten and first grade students significantly improved from pre to post assessments (Tales for Tots participants and non-Tales for Tots participants).

Pre- to Post-test

There was a significant increase in kindergarten ISF scores from pre- to post-test, $F(1,91) = 191.34$, $p = <.01$, $\eta^2 = .68$; a significant increase in kindergarten LNF scores from pre- to post-test, $F(1,91) = 572.88$, $p = <.01$, $\eta^2 = .86$; a significant increase in kindergarten PSF scores from pre- to post-test, $F(1,91) = 215.14$, $p = <.01$, $\eta^2 = .70$; and a significant increase in kindergarten NWF scores from pre- to post-test, $F(1,91) = 176.24$, $p = <.01$, $\eta^2 = .66$. Moreover, in first grade, there was a significant increase in PSF scores from pre- to post-test, $F(1,58) = 42.79$, $p = <.01$, $\eta^2 = .43$; a significant increase in NWF scores from pre- to post-test, $F(1,58) = 133.44$, $p = <.01$, $\eta^2 = .70$; and a significant increase in ORF scores from pre- to post-test, $F(1,58) = 129.86$, $p = <.01$, $\eta^2 = .69$.

Table 7

Improvements From Pre- to Post-Test for All DIBELS Measures Across Kindergarten and First Grade

		Pre-Test		Post-Test	
	N	$\overline{X}$	(SD)	$\overline{X}$	(SD)
Kindergarten					
Initial Sound Fluency (ISF)	95	11.20	(8.91)	29.83	(12.80)
Letter Naming Fluency (LNF)	95	14.76	(14.05)	49.84	(16.09)
Phonemic Segmentation Fluency (PSF)	95	23.81	(14.82)	46.49	(16.04)
Nonsense Word Fluency (NWF)	95	20.64	(14.12)	36.94	(20.05)
First Grade					
Phonemic Segmentation Fluency (PSF)	62	35.94	(14.41)	48.39	(9.29)
Nonsense Word Fluency (NWF)	62	28.63	(15.53)	74.40	(30.37)
Oral Reading Fluency (ORF)	62	41.29	(28.59)	61.81	(30.10)

Additionally, follow-up univariate ANOVAs were used to examine main effects and interactions on each dependent variable. Results for each of the dependent variables are presented separately.

Initial Sound Fluency

Initial Sound Fluency in Kindergarten. For ISF in hypothesis one, a 2 x 2 x 2 mixed model ANOVA was conducted to assess the impact of both participation in Tales for Tots and how often parents reported they read to their children on students' scores on

the DIBELS measure of ISF in kindergarten, across two time periods (beginning of the year and middle of the year). There was no significant interaction between participation status and parents' reports of reading to their child daily, $F(1,91) = 2.98$, $p = .09$. There were no significant main effects for participation status, $F(1,91) = 3.52$, $p = .06$; or parents' reports of reading to their child daily, $F(1,91) = .45$, $p = .50$.

Letter Naming Fluency

Letter Naming Fluency in Kindergarten. Similarly, a 2 x 2 x 2 mixed model ANOVA was conducted to assess the impact of both participation in Tales for Tots and how often parents reported they read to their children on students' scores on the DIBELS measure of LNF in kindergarten, across two time periods (beginning of the year and end of the year). There was no significant interaction between participation status and parents' reports of reading to their child daily, $F(1,91) = .03$, $p = .87$; however, there was a significant main effect for participation status, $F(1,91) = 8.30$, $p = .01$, $\eta^2 = .08$, suggesting that Tales for Tots participation status has a significant, positive impact on a kindergartener's ability to name letters fluently; however this only accounted for 8% of the variance. There was no main effect for parents' reports of reading to their child daily, $F(1,91) = 1.61$, $p = .21$.

Table 8

Improvements in Letter Naming Fluency for Kindergarten Participants

Tales for Tots Participation Status	LNF Beginning of the Year			LNF End of the Year	
	N	$\overline{X}$	(SD)	$\overline{X}$	(SD)
Participant	35	19.20	(16.54)	55.49	(15.61)
Non-Participant	60	12.17	(11.77)	46.55	(15.57)

Phonemic Segmentation Fluency

Phonemic Segmentation Fluency in Kindergarten. A 2 x 2 x 2 mixed model
ANOVA was conducted to assess the impact of both participation in Tales for Tots and
how often parents reported they read to their children on students' scores on the DIBELS
measure of PSF in kindergarten, across two time periods (middle of the year and end of
the year). Again, there was no significant interaction between participation status and
parents' reports of reading to their child daily, $F(1,91) = .31$, $p = .58$. There also were no
significant main effects for participation status, $F(1,91) = .67$, $p = .42$; nor parents'
reports of reading to their child daily, $F(1,91) = 3.26$, $p = .07$.

Phonemic Segmentation Fluency in First Grade. For hypothesis two, a 2 x 2 x 2
mixed model ANOVA was conducted to assess the impact of both participation in Tales
for Tots and how often parents reported they read to their children on students' scores on
the DIBELS measure of PSF in first grade, across two time periods (beginning of the year
and end of the year). There was a significant interaction between participation status and
parents' reports of reading to their child daily, $F(1,58) = 4.58$, $p = .04$, $\eta^2 = .07$,
suggesting that Tales for Tots participants who were read to daily scored higher on PSF

than Tales for Tots participants who were not read to daily. There was not a significant

main effect for participation status, $F(1,58) = 3.57$, $p = .06$. There was also no main

effect for parents' reports of reading to their child daily, $F(1,58) = 1.33$, $p = .25$. This

also supported hypothesis three, which hypothesized that Tales for Tots participants who

were read to daily would score higher than Tales for Tots participants who were not read

to daily.

Table 9

Interaction Between Tales for Tots Participation Status and Daily Reading Status for

Phonemic Segmentation Fluency in First Grade

			PSF Beginning of the Year		PSF End of the Year	
Tales for Tots Status	Daily Reading Status	N	$\overline{X}$	(SD)	$\overline{X}$	(SD)
Participants	Everyday	18	42.00	(9.41)	49.22	(10.43)
Participants	Not Everyday	8	37.38	(16.95)	49.00	(14.09)
Non-Participants	Everyday	16	25.88	(15.83)	45.56	(5.92)
Non-Participants	Not Everyday	20	37.95	(12.6)	49.65	(8.34)

Nonsense Word Fluency

Nonsense Word Fluency in Kindergarten. A 2 x 2 x 2 mixed model ANOVA was

conducted to assess the impact of both participation in Tales for Tots and how often

parents reported they read to their children on students' scores on the DIBELS measure

of NWF in kindergarten, across two time periods (middle of the year and end of the year).

There was no significant interaction between participation status and parents' reports of reading to their child daily, $F(1,91) = .26$, $p = .61$. However, there was a significant main effect for participation status, $F(1,91) = 7.14$, $p = .01$, $\eta^2 = .07$, suggesting that Tales for Tots participation status has a significant, positive influence on a kindergartener's ability to fluently read nonsense words, especially at the post-test measure of NWF; however, this only accounted for 7% of the variance in the scores. There was no main effect for parents' reports of reading to their child daily, $F(1,91) = 1.91$, $p = .17$.

Table 10

Improvements in Nonsense Word Fluency for Kindergarten Participants

Tales for Tots Participation Status	NWF Middle of the Year			NWF End of the Year	
	N	$\overline{X}$	(SD)	$\overline{X}$	(SD)
Participant	35	24.43	(16.19)	44.17	(23.28)
Non-Participant	60	18.43	(12.38)	32.25	(16.58)

Nonsense Word Fluency in First Grade. A 2 x 2 x 2 mixed model ANOVA was conducted to assess the impact of both participation in Tales for Tots and how often parents reported they read to their children on students' scores on the DIBELS measure of NWF in first grade, across two time periods (beginning of the year and end of the year). There was not a significant interaction between participation status and parents' reports of reading to their child daily, $F(1,58) = .93$, $p = .34$. There was not a significant main effect for participation status, $F(1,58) = .17$, $p = .69$ and there was also no main effect for parents' reports of reading to their child daily, $F(1,58) = .17$, $p = .73$.

Oral Reading Fluency

Oral Reading Fluency in First Grade. A 2 x 2 x 2 mixed model ANOVA was conducted to assess the impact of both participation in Tales for Tots and how often parents reported they read to their children on students' scores on the DIBELS measure of ORF in first grade, across two time periods (middle of the year and end of the year). There was not a significant interaction between participation status and parents' reports of reading to their child daily, $F(1,58) = .22$, $p = .64$. There was not a significant main effect for participation status, $F(1,58) = .16$, $p = .69$ and there was also no main effect for parents' reports of reading to their child daily, $F(1,58) = .03$, $p = .87$.

According to the last hypothesis, it was suspected that Tales for Tots participants would report that they enjoy reading more than non-Tales for Tots participants. The HRS had two open-ended questions that requested information about parental satisfaction with Tales for Tots as well as influences the program had on the participating child. It was expected that parents would comment on their children's enjoyment in reading on these items. However, non-Tales for Tots participants were directed to discontinue completion of the questionnaire before these questions. Unfortunately, due to this limitation of the HRS, the data from these questions could not be analyzed, so no conclusion could be made regarding this hypothesis. Nonetheless, as Chiu and McBride-Chang (2006) stated, students who enjoy reading will be better readers than those who do not enjoy reading. Because of this, it is important that parents and programs instill an interest in reading in children.

DISCUSSION

Tales for Tots is a free, early literacy program for children born in Macon County, North Carolina. The program mails a free book each month to each participating child from birth to age six. This program is in its seventh year with its initial group of participants entering second grade this year. Tales for Tots is similar to other early literacy programs, such as ROR and Imagination Library, as it targets a similar range of ages and provides books to children and their families at no cost. However, Tales for Tots is likely more convenient for families as reading materials are mailed to their home, rather than at a separate location. Another difference from other programs is that Tales for Tots books are by a variety of authors from multiple publishers and are selected based on children's ages by the local Tales for Tots administration. Tales for Tots incorporates several components of successful literacy programs, such as providing books free of charge, encouraging shared-reading between adults and children, and targeting children at an early age.

This study focused on evaluating the potential outcomes of the Tales for Tots program on reading behaviors. This study investigated reading readiness in the context of looking at DIBELS scores and personal variables (e.g. SES, parental education level, gender, and ethnicity) related to participation or no involvement in the Tales for Tots program. Multivariate ANOVA analyses were conducted and indicated that there were no significant differences between groups on any of these variables based on program participation.

The main hypothesis of this study was that kindergarten students who participated in the Tales for Tots program would have higher DIBELS scores than kindergarten students who did not participate in Tales for Tots on the measures of initial sound fluency, letter naming fluency, phonemic segmentation fluency, and nonsense word fluency. Based on the results from mixed model ANOVAs, this part of the hypothesis was confirmed for two kindergarten DIBELS measures: LNF assessed at the beginning and end of the year in kindergarten and NWF measured at the middle and end of the year in kindergarten. Additionally, the second hypothesis was similar. It was hypothesized that first grade Tales for Tots participants would have higher DIBELS scores than first grade non-Tales for Tots participants on the measures of phonemic segmentation fluency, nonsense word fluency, and oral reading fluency. Mixed model ANOVAs confirmed this part of the hypothesis for one first grade measure: PSF measured at the beginning and end of the year in first grade.

The result was similar to previous research which has shown that having books in the home directly influences reading ability in the early elementary grades, particularly the development of vocabulary and listening comprehension skills (Sénéchal and LeFevre, 2002). Further, the research suggests that more involved reading experiences between parents and children, such as teaching children during reading, influences the development of early literacy skills. These results suggest that Tales for Tots parents and children shared similar experiences at home using their free Tales for Tots books.

When looking at LNF in kindergarten, it was found that Tales for Tots students scored significantly higher than non-Tales for Tots participants. At the beginning of the year, Tales for Tots students were correctly naming 19 letters a minute compared to 12 (non-participants) and at the end of the year, Tales for Tots students were naming about 55 letters compared to 46 (non-participants). Similarly for NWF in kindergarten, there was an interaction effect. Tales for Tots students also scored significantly higher (whether their parents read to them everyday or not) on Nonsense Word Fluency in kindergarten. At the end of the year, participants were reading 44 nonsense words compared to 32 (non-participants). Tales for Tots were significantly higher (than non-Tales for Tots) at post test in this skill area.

In first grade, Tales for Tots students scored significantly higher than non-Tales for Tots students on PSF (41 compared to 33) at the beginning of the year. And, of those participants, those who were read to daily, scores were even higher than non-participants who were read to daily (42 compared to 26). However, at the end of the year, these differences were not as great. Overall, participants scored slightly higher than non-participants (49 compared to 48) and participants who were read to daily scored slightly higher than non-participants who were read to daily (49 compared to 46).

Research consistently indicates that reading in the home is related to language development, phonological awareness, and overall reading success (Bus et al., 1995; National Institute for Literacy, 2009; Sénéchal and LeFevre, 2002). This finding was predicted, since research has long suggested that reading with a child, such as with shared-reading practices, has positive results, especially in the earlier years (Bus et al., 1995; National Institute for Literacy, 2009). Justice and Ezell (2002) and others have

found increased skills in the areas of alphabet knowledge, word segmentation, and phonological sensitivity with shared-reading (Lonigan et al., 1999).

It was interesting that the only significant area based on daily reading status was PSF. Based on the research, significant differences particularly in the areas of ISF and PSF would have been expected, because ISF and PSF are needed skills for decoding nonsense words and it could be logically concluded that PSF would be related to listening comprehension. However, it was not surprising that the other significant findings for higher DIBELS scores were for measures administered in kindergarten. The Tales for Tots program most likely influences children's early skills, rather than later skills because program participation is discontinued at the age of six years. Thus, it might be concluded that participation in the Tales for Tots program influences LNF and NWF in kindergarten students, but the impact of participation is only seen in one measure (PSF) after kindergarten.

As previously mentioned, the last hypothesis could not be investigated; however, it is important to note that enjoyment in reading is crucial for literacy success. Research has indicated that it is important for parents to encourage their children to have positive attitudes towards reading; reading should be a source of enjoyment. Burns et al. (1999) recommended creating a warm atmosphere around reading activities, being very responsive to children when they ask questions or make remarks about stories, making literacy part of playtime so it is something the child will look forward to, letting the child choose the books the family reads together, and taking children to the library often. Chiu and McBride-Chang (2006) stated that students who enjoy reading will tend to be better readers relative to students who do not enjoy reading.

Additionally, it has been confirmed that children's exposure to books in the home is directly related to reading ability in the early elementary grades (Sénéchal & LeFevre, 2002). The recent study by Chiu and McBride-Chang (2006) that assessed reading comprehension in over 199,000 students in 43 countries obtained similar results with older children; exposure to books in the home is independently associated with reading achievement in adolescent students.

Overall, these finding suggest that participation in the Tales for Tots program does impact some early reading skills in kindergarten and first grade: letter naming fluency, nonsense word fluency, and phonemic segmentation fluency. In addition, results demonstrated that reading to a child daily does make a difference in at least one early reading skill: phonemic segmentation fluency. While significant results were found for many of the hypotheses in this study, future research is needed to further explain the reasoning behind these findings, especially whether the influence of many reading programs lasts beyond the early academic years of participants. Future research looking at the longitudinal effects of early reading programs, such as Tales for Tots, specifically past first and second grade are recommended, as they may indicate that some of the effects are these programs may not be noticed until later years, or that effects from these programs diminish as students reach the later elementary years.

When looking at early literacy development in students, research has shown that there is a plethora of impacting variables that ultimately determine a child's ability and success. Still then, some children defy probability and perform well when all odds are against them. Programs such as the one reviewed here can possibly serve as a buffer or

protective mechanism to lessen the influence of other variables that are working against a child's ability to achieve well in regards to literacy.

There were, however, several limitations to this study, which could account for some of the findings, or the lack of findings across all areas measured. First, in the event that this particular study is replicated, it will be important that the HRS be edited, so that data about enjoyment in reading can be analyzed. In this study, only parents of Tales for Tots participants were asked about their child's enjoyment in reading. In the future, it is suggested that this question be asked to both program participants as well as non-participants so the variable of enjoyment can be compared across groups. Additionally, the elimination and addition of some questions is also recommended, so that future researchers obtain the most useful data possible in regards to their specific interests, such as asking more questions about at-home reading (e.g. how much time is spent reading, if the parent reported reading to the child), how much reading the child does for school, or how the child is doing with reading in school (based on grades, assessment scores, or teacher reports).

Further, due to the fact that the HRS was based on self-report and voluntary, it is possible that the results are not a good estimate of the Tales for Tots participants and possibly the student population in Macon County. Other methods of data collection, such as phone calls, interviews, or observations could be added. These forms of data collection, in addition to a survey, would provide a more comprehensive view of family reading habits, and may help alleviate the potential for bias. Moreover, the study used the DIBELS measures to assess early reading skills. A different reading measure may have provided different results, such as standardized achievement measures like the

Wechsler and Woodcock-Johnson assessments currently on the market. Other forms of reading assessment that require a longer administration time may be more time consuming, but they would likely provide more in-depth information about early reading skills.

More research should be completed that looks at other literacy skills that are not assessed by DIBELS, such as writing, vocabulary, and comprehension. As research indicated, there are many skills related to early literacy development in children that are not measured with the DIBELS assessments. Another limitation of the current study was that school-based instructional techniques were not assessed. Participants were from six different schools and it was unknown if teachers at these schools used similar instructional methods in reading. At the same time, limitations of actual participants were unknown. While parents were asked if their children had any disorders or disabilities, very few reported that their child had any. Thus, it is possible that cognitive functioning served as a confound in the study.

Finally, it also worth noting that initial enrollment in the Tales for Tots program requires a parent to complete a registration form that must be turned in to the local library. This could have limited the pool of individuals who were enrolled in the Tales for Tots program. Some parents may not have registered due to a lack of knowledge about the program due to having never been to the library, while other parents may have opted out of the program because they felt their child had enough books already. Other than finding out about the program from the library, a pamphlet is sent home with parents when they leave from the local hospital after having their child. One suggestion for increased enrollment would be for the program to utilize more advertising opportunities

and make parents more aware of the program, such as through the newspaper. Another

suggestion for the Tales for Tots program would be to inform parents about current

research regarding literacy. Parents of Tales for Tots participants could be invited to

attend mini-workshops that teach how to effectively read with children and discuss easy-

to-use strategies and techniques for parents to try at home.

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APPENDICES

APPENDIX A

K-2 Home Reading Survey

<u>Part I:</u>

1. Child's name: _____

2. Child's School: _____

3. Child's Birthdate: _____

4. Male _____ Female _____

5. Race: White ___Black or African American _____   American Indian or Alaska

   Native _____ Asian American _____ Hispanic ___   other _____

6. Grade: Preschool ___ Kindergarten ___1st grade _____ 2nd grade _____

Briefly indicate if your child has experienced any learning problems in school:
_____

7. Person completing form: Mother ___ Father ___ other ___

8. Siblings:
   Gender: Age:
   _____
   _____

9. What is the highest level of education completed by the parents:
Mother   Father
_____   _____ some high school
_____   _____ completed high school
_____   _____ some college
_____   _____ completed college w/ Associate degree
_____   _____ completed college w/ Bachelor degree
_____   _____ graduate degree

10. Check the category that best describes the parents' occupations:
Mother Father
___   ___   Managerial or Professional (exs: Doctor, Nurse, Lawyer,
                  Accountant, Teacher, Engineer)
___   ___   Technical or Clerical: (exs: Secretary, Cashier, Police Officer,
                  Sales, Computer Operators)
___   ___   Skilled Worker: (exs: Carpenter, Plumber, Painter, Mechanic,
                  Driver)
___   ___   Manual Labor: (exs: Laborer, Custodian)
___   ___   Food Service, Housekeeping, Factory work
___   ___   Currently not working

Part II:

11. What type of preschool program did your child attend (prior to Kindergarten)?
____ public daycare   ____ private daycare
____ did not attend a formal preschool program

12. Approximately how many books do you purchase for your child each month?
_____ I don't buy my child books   _____ 1-4
_____ 5-9 books   _____ 10 or more books

13. Who does your child generally receive books as gifts from?
Parents ____   Family members _____
Friends _____ Others _____
My child doesn't get books as a gift ____

14. Does your child ever ask you to buy books?
Yes _____ No _____

15. How many trips each month do you make to the library with your child?
___ we do not use the public library   ___ 1-2
___ 3-5   ___6 or more
___Unsure

16. Instead of buying books do you use the public library?
Yes, often ____ Yes, sometimes ____ No ____

17. How would you compare the reading activities in your home now versus your home growing up?
We read more ____   We read about the same _____ we read less _____

18. Do you read to your child every day?
Yes, everyday ____   Almost everyday ____ Occasionally ____ No _____

19. Do you have a specific time(s) of day to read to your child?
Morning _____ Afternoon _____ Evening _____ Bedtime _____

20.What type of books or stories does your child like best?
(if they have a favorite book you may want to mention that)

_____

21. How often does your child ask you to read to him or her?
___ everyday   ___ 3-5 times a week
___ at least once a week   ___ not often, but at least once a month
___ not often

22. When you read to your child, do you show him/her the words as you read?
Yes _____   Sometimes _____ No_____

23. Does your child ever pretend to read to you?
Yes _____ Sometimes _____ No _____

24. Do you talk to your child about the books you read to him or her?
Always _____Often _____ Sometimes _____ Never _____

25. If yes, do the discussions:
___ focus on the characters   ___ focus on what the characters are doing
___ focus on the story plot

26. What types of material do you read?
Entertainment Magazines _____   Newspapers or news magazines _____
Fiction books_____   Nonfiction books _____   Professional material _____
Internet sites _____   Other _____

27. How often does your child see you read?
___ everyday   ___ 3-5 times a week
___ at least once a week ___ not often, but at least once a month
___ not often

28. How much education would you like your child to receive?
high school _____   technical/training school _____
a 4 year university or college _____   beyond a college degree _____
I would want my child to decide this _____

29. Does your child have his/her own TV?
___ Yes ___ No

30. In general, how much time (in hours) does your child spend watching television:
during the week _____   On the weekends _____
What is their favorite television show? _____

31. How often do you check to see what your child is watching?
All programs are checked _____   Most programs are checked _____
Trust child to know what parents would allow _____

32. What kinds of recreational activities have you and your child participated in during the past 6 months?
___ Sporting events   ___ Hiking/outdoor activities
___ Swimming   ___ Shows (musicals, theatre) _____
___ Going to the park ___ Movies
___ Museums   ___ other : _____

33. Does your child take any lessons outside of school (ex: sports, dance, music, art)?
Yes _____ No _____
What type (s) and for how long? _____

34. Was your child a participant in the Tales for Tots Program (the free books sent to your child in the mail each month from the public library)
Yes _____   No _____

35. If you did not participate in the Tales for Tots Program why did you choose not to join?_____
_____
_____

*** If your child never participated in Tales for Tots you may stop now.
36. If yes, how long was he or she involved?
 From age _____ to age _____.

37. If you stopped participating in the program, what led to your decision?
_____
_____

38. If you participated in the Tales for Tots program, what did you like the most about it?
_____
_____
_____

39. Please feel free to comment concerning the Tales for Tots program, or any influences on your child's reading that we have not asked.
_____
_____
_____

Thank you for your time in completing this survey!

APPENDIX B

Informed Consent Form

My colleague Marilyn Chamberlin, an Associate Professor in Anthropology and Sociology and I, Mickey Randolph, a Professor of Psychology at Western Carolina University are interested in looking at factors related to a child's reading ability and interest in reading.

We are interested in a variety of behaviors which may help us understand why children enter school with better developed reading skills and why some children seem to enjoy reading more than others.

Your involvement in this project involves answering questions regarding your home and reading. The survey is brief and should only take 10-15 minutes to complete. When you consent to be a part of this study you also allow us to have access to your child's reading readiness scores (from the reading tests your school routinely administers at the beginning and end of the school year). Your participation is voluntary. You may withdraw at any time or decline to answer any question you choose. Your responses will be held strictly confidential. When the scores have been collected, all names will be removed and no one will be able to identify any specific child's information.

If you would like to discuss this study before agreeing to participate please feel free to contact either Dr. Marilyn Chamberlin (828-227-839 Mchamberlin@wcu.edu) or Dr. Mickey Randolph (828-227-3359 Randolph@wcu.edu at any time. If you have any additional questions, you can reach the Chair of the Western Carolina University Institutional Review Board at 227-3177.

Please complete the portion of the consent form below:

I do □ or do not □ give my permission to the investigators to use my responses in their research.

Date: _____

Name: _____
     print

Name: _____
     signature