AN INVESTIGATION OF KINDERGARTEN TEACHERS'

REPORTS OF READING PRACTICES


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BY

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To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Rebecca Molidor entitled
"An Investigation of Kindergarten Teachers' Reports of Reading Practices". I have
examined this dissertation for form and content and recommend that it be accepted in
partial fulfillment of the requirements for the degree of Doctor of Philosophy with a
major in Special Education.

Jane Pemberton, Ph.D., Major Professor

We have read this dissertation and recommend its acceptance:

Associate Dean, College of Professional Education

Accepted:

Dean of the Graduate School

DEDICATION

This dissertation is dedicated to the ones I love, both here and in Heaven

To God, who kept me in the palm of his hand.  He recently reminded me "I can do all things through Christ who gives me strength."

To my steadfast husband, Josh, and amazing children, Leah, Micheline, Megan, Daniel and Kirsten who encouraged me to reach for my dream.  To my grandson, Aydin, who reminds me of the miraculous process of typical language and literacy development.

To my precious son, Noah, who has provided Heavenly inspiration. The dissertation journey has helped me in my journey of grief.

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ABSTRACT

REBECCA A. MOLIDOR

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The purpose of this study was to gather data regarding kindergarten teachers'

reported practices for teaching reading, especially in provision of the Response to

Intervention model.   The study collected data about specific practices in the area of

reading instruction and intervention in the areas of phonemic awareness and phonics.

The survey instrument used in the study was developed by the researcher.  A pilot study

was conducted to gather feedback about ways to increase the surveys' clarity.

The following four research questions guided the study:  1) what general RTI

practices are currently being utilized by kindergarten teachers; 2) what instructional

strategies are utilized by kindergarten teachers to teach phonemic awareness skills and

phonics skills at Tier 1; 3) what instructional arrangements (settings) are utilized by

kindergarten teachers to teach phonemic awareness and phonics skills at Tier 1; and  4)

what types of programs are utilized by kindergarten teachers to implement Tier 2

interventions in the areas of phonemic awareness and phonics?

The target participants were kindergarten teachers in the Region 10 and 11 Service Centers of North Texas. Surveyed school districts, schools and teachers were randomly selected.

The survey included items to gather both quantitative and qualitative types of data. Opportunities for participants to provide descriptive information were included in questions regarding all four research questions; however, the fourth research question included the most open-ended items, which received several descriptive responses.

Findings regarding teachers' reports of instructional and intervention practices and Response to Intervention were revealed. In addition, specific teachers' perspectives about teaching reading at the kindergarten level were discussed.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

**Statement of the Problem**

Research conducted over the past 20 years has demonstrated that it is essential for students to master foundations of reading during the first three years of elementary school (Snow, Burns & Griffin, 1998).   Young children's development of early reading skills is highly predictive of their future reading success.  Longitudinal studies indicated that students who did not successfully master basic reading skills before third grade were at significant risk for life-long reading difficulties (Francis, Shaywitz,  Stuebing, Shaywitz, & Fletcher, 1996; Juel, 1988; Torgesen & Burgess, 1998).   Conversely, provision of early prevention and intervention can reduce the chances of long term failure and the need for special education (Fuchs, 2002; Vellutino, 1996, 2006).

When students who are at-risk for reading failure do not receive early identification and targeted interventions, the reading skills of these students can continue to fall further behind those of their peers.   A summary from *Early identification and intervention for young children with reading/learning disabilities summit*  (Jenkins & Connor, 2001),  reported that "because school district personnel tend not to identify these children until the middle elementary grades, their reading difficulties grow stronger roots and possibly become more intractable.  For the most effective intervention, schools must find ways to identify these children much earlier than usually occurs" (p. 2-3).

Federal policy has emphasized easy prevention and intervention  through two

pivotal educational laws, Individuals with Disabilities Education Improvement Act

(IDEIA, 2004) and No Child Left Behind (NCLB, 2002), which are based on evidence

that early identification of children who are at-risk for reading difficulties is essential for

prevention of reading failure (Schatschneider, C., Francis, D., Fletcher, J., & Foorman,

B., 2004).   NCLB focused on prevention of reading difficulties by identifying students

who were at risk *before* they fell behind and providing effective, research-based reading

instruction as soon as students began to fall behind (Cavanaugh, Kim, Wanzek &

Vaughn, 2004).  The laws required documentation of reading achievement levels

beginning at the kindergarten level.

Results from the National Longitudinal Study of Youth, 1979, which tracked

educational progress of nearly 4,000 students for four decades, indicated that students not

reading proficiently by the third grade were four times more likely to drop-out than their

peers who were proficient readers (Annie E. Casey Foundation*, 2011).*   Additional

evidence about the far-reaching nature of reading difficulties came from the National

Assessment of Educational Progress (NAEP, 2011), which included reading assessments

of 215,000 fourth graders and 168,000 eighth graders throughout the nation.  The NAEP,

often referred to as "The Nation's Report Card," revealed that 33% of tested fourth-grade

students read at or above the proficient level.   Of the 67% students who fell in the

"below proficient" range, half demonstrated "basic" reading proficiency while the other

half demonstrated "below basic" reading proficiency (NAEP, 2011).   These results were

not statistically different from reading achievement levels found by the National Assessment of Educational Progress in 2007 and 2009.   Conclusions from studies have revealed that "children who are poor readers at the end of first grade almost never acquire average-level reading skills by the end of elementary school" (Torgesen, 2002, p. 8).

Reading failure can be reduced with early prevention and intervention (Foorman, Francis, Fletcher, Schatschneider & Mehta, 1998; Vellutino, Scanlon, Sipay, Small, Chen et al., 1996).  Researchers in the field of early reading have concluded that preventing reading failure begins at the kindergarten level, if not earlier (Lonigan, Burgess & Anthony, 2000).   The longer the delay in provision of targeted interventions to students at-risk for reading failure, the more difficult it becomes to remediate the delays (Torgesen, 2004).

To address the prevention of reading failure, an educational framework based on a public health prevention model was developed and referred to as Response to Intervention (RTI) (Fletcher & Vaughn, 2009).   RTI targets prevention of reading failure by increasing a school's capacity to identify children at-risk for reading difficulties and provide early intervention (Vaughn, Wanzek, & Fletcher, 2007).   According to the *National Association of State Directors of Special Education (NASDE) and Council of Administrators of Special Education (CASE) White Paper on RTI (2006)*, RTI encompasses three components:  (1) high quality instruction and intervention matched to student need; (2) use of learning rates to determine students' response to instruction and (3) level of performance to make important educational decisions.

While many models of RTI are currently being utilized, the general components are essential in order for the process to be effective in increasing the reading skills of all students, especially for those students at-risk for reading failure. The underlying premise of RTI is provision of high quality instruction, which is described as "balanced, explicit, and systematic reading instruction" (Vellutino, Scanlon, Small, Fanuele, & Sweeney, 2007). High quality instruction must have a strong scientific foundation, and interventions need to be initiated as soon as concerns are identified, without allowing time for a student's skill gaps to widen. A report from Spectrum K-12 indicated that over 70% of school districts in the United States are implementing RTI.

The RTI framework includes several levels or tiers of instruction and intervention. In the RTI model, on-going data collection is utilized to determine whether a student is making sufficient progress when receiving general or core classroom instruction (Tier 1). Targeted, focused interventions (Tier 2) are provided in addition to core classroom instructional time with the objective of helping the majority of students with reading difficulties attain grade level expectations. In order to close the achievement gaps that are apparent in early literacy development, Tier 2 interventions are designed to accelerate a student's progress (Justice, 2006). After a student has received targeted, focused, or Tier 2 interventions for a period of six to ten weeks and has not made sufficient gains in closing the achievement gap, he/she participates in more specialized and intensive interventions, which are referred to as Tier 3 (Zirkel & Thomas, 2010). In some RTI models, educators with advanced training in reading

4

provide specialized interventions at Tier 3, which may also include consideration of special education assessment and specially designed instruction.

In addition to prioritizing high quality instruction, RTI seeks to prevent students from needing more intensive types of intervention, such as special education.   The provision of high quality instruction provided for all students, especially those students at greatest risk for reading failure, reduces the likelihood that students will require more intense interventions (Mather, Bos & Babur, 2001).

When quality foundational reading skills are provided, a student's inadequate response to instruction may be used diagnostically to indicate whether a student's reading difficulties are inherent in the specific student rather than generalized as poor quality instruction (Torgesen, 2002).  According to Baker, Fien & Baker (2010), serious examination of the quality of general classroom instruction has been lacking.   Provision of high quality, evidence-based instruction is essential for improved reading achievement, as well as essential for reducing the number of students identified with reading difficulties.

One foundational scientific report, *Preventing Reading Difficulties in Young Children,* initiated by the U. S. Department of Education, consisted of a meta-analyses of effective reading research which identified critical components of high quality instruction *(*Snow et al., 1998).  To be efficient and effective, core classroom instruction for all students should include explicit, systematic instruction in the five identified essential reading components: phonemic awareness, phonics, vocabulary, fluency and

comprehension.  Students not progressing adequately in any area of reading should receive differentiated instruction in the identified deficit areas.  Differentiated instruction, which is the essence of core classroom instruction (Tier 1), should become systematically more explicit, direct and intense to assist students who are not progressing adequately with less intense instruction.

Convergent evidence stipulated that explicit, direct instruction was especially important for students in kindergarten and first grade and crucial for all students at-risk for reading difficulties (Snow et al., 1998).  Explicit, direct instruction with sufficient intensity was determined to be effective in helping a large percentage of students who are at-risk attain grade level expectations and no longer need differentiated interventions.

Federal mandates requiring reading instruction to consist of evidence-based practices have focused on translating research about effective reading instruction into practices that can be implemented in classrooms.  A significant body of research has yielded instructional strategies and student grouping arrangements that are effective for schools (Cavanaugh et al., 2004).   Many of these scientifically-based strategies were identified in intervention studies, which compared results from different instructional programs.  Examples of strategies that are effective with kindergarten students struggling with literacy included reducing the number of targeted objectives per lesson and initial instruction of skills in isolation, followed by generalization of skills (Cavanaugh et al., 2004). Evidence targeting instructional arrangements has indicated that general core classroom instruction should include small groups based on reading ability levels

(Vaughn & Linan-Thompson, 2003).    Provision of supplemental small groups, which

are more highly targeted, were recommended for students struggling to master general

curriculum (Gersten, Compton, Connor, Dimino, Santora et al., 2009).

Vaughn & Linan-Thompson (2003) investigated the impact of group size on

efficacy of interventions for students struggling with reading.  Seventy-seven second

graders received supplemental explicit reading interventions with 1:1, 1:3 or 1:20

student/teacher ratios over a period of 11 weeks. While all students made gains, the

greatest ones were noted in groups with a 1:1 and 1:3 ratio, with no significant difference

noted between these two group sizes.   The results reported by Vaughn & Linan-

Thompson (2003) were consistent with other findings that small group interventions to be

the most effective.

Vellutino and colleagues (2006) followed 1,373 kindergarten students for five

years.  At the beginning of kindergarten, approximately 30% of the students were found

to be at-risk for early reading difficulties based on a letter naming test.  Measures of

phonemic awareness were administered to identify students at increased risk for reading

difficulties.   The treatment group of students was enrolled in small group early literacy

interventions for the duration of kindergarten.   Reassessments at the end of the year

indicated students in the treatment group made greater gains than the control group in

several phonologically based literacy skills.  The authors concluded that "early

intervention on behalf of at-risk children identified at the beginning of kindergarten can

significantly improve the foundational literacy skills of such children and help prepare them for reading instruction in first grade" (p. 159).

Phonological awareness and phonics have been demonstrated to be highly predictive of a student's ability to become a successful reader. Jenkins & O'Connor (2001) reported that "findings from studies of the combination of phonological awareness and letter knowledge have converged to indicate that these two combined account for 40 to 60 percent of the variance in reading skills" (p. 3).

Research about phonemic awareness instruction indicated the most effective instruction included:  1) visual letters; 2) fewer phonemic manipulations targeted at one time; and 3) instruction conducted in small groups.  Research focused on phonics instruction indicated that:  1) systematic phonics instruction was beneficial for kindergarten to sixth grade students, but the greatest impact was seen in kindergarten and first grade; 2) phonics must be integrated with instruction in other key areas; and 3) small group instruction was most effective.

## Purpose of the Study

The purpose of this study was to examine kindergarten teachers' current practices in the provision of reading instruction and interventions.   Use of RTI was also examined. This study, conducted through a survey format, investigated how kindergarten teachers taught phonological awareness and phonics skills at the core classroom level (Tier 1) and

targeted, focused intervention level (Tier 2).   The research questions included in the study are:

1. What general RTI practices are currently being utilized by kindergarten teachers?

2.  What instructional strategies are utilized by kindergarten teachers to teach phonemic awareness skills and phonics skills at Tier 1?

3. What instructional arrangements (settings) are utilized by kindergarten teachers to teach phonemic awareness and phonics skills at Tier 1?

4. What types of programs are utilized by kindergarten teachers to implement Tier 2  interventions in the area of phonemic awareness and phonics?

## Significance

Effective reading instructional strategies and programs from the earliest stages of reading development are essential to gains in reading.   Results of this study will provide data regarding the current practices of kindergarten teachers in the area of reading.

## Definition of Terms

For the purpose of this study, the following terms are operationally defined:

Core classroom instruction:  instruction designed for all students in a classroom and includes both large group and small group instruction.  Core classroom instruction is referred to as Tier 1 in an RTI framework.

Differentiated instruction:  instruction tailored for specific students' strengths and weaknesses.

Individuals with Disabilities Education Improvement Act (IDEIA):  a revision of the law, Individuals with Disabilities Education Act, which was originally enacted by Congress in 1975.  IDEA , provides children with disabilities the opportunity to receive a free appropriate public education.

Instructional Arrangements:  teaching approaches or settings which vary in group composition and level of teacher-direction.

Interventions:  more highly differentiated than core classroom instruction and often referred to as Tier 2 in the RTI model.

No Child Left Behind Act of 2001 (NCLB):  a federal law designed to raise education standards and accountability for students in public education.  NCLB increased the emphasis on reading in schools.

Phonemic awareness:  the ability to focus on and manipulate phonemes in spoken words, such as blending sounds to make words and deleting or adding sounds to form new words.

Phonics:  how the sounds of speech are represented by letters and spellings.

Programs:  materials and resources that may be commercially-produced or designed by teachers or school districts to provide Tier 2 interventions for students at-risk for reading difficulties.

 Response to Intervention (RTI):  an educational framework which establishes provisions for meeting the diverse academic and behavioral needs of students including

high-quality instruction which is differentiated for student needs.  Various levels or tiers of instruction that increase in intensity are a foundation of RTI.

Strategies:  instructional techniques that are used to improve students' performance on learning tasks.

Student Support Team (SST):  a multi-disciplinary team of educators who are campus-based and whose goal is to provide support to teachers when a student is not progressing sufficiently, either in academic, social or behavioral domains.  The SST, which often includes administrators, classroom teachers, therapists, counselors or psychologists, designs a plan of specialized interventions to improve the student's success.  The SST often determines when a student needs more intense instruction, such as Tier 2 or Tier 3 instruction, or the need for special education referral.

CHAPTER II

REVIEW OF LITERATURE

Before the passage of IDEIA and NCLB, researchers compiled a significant body of evidence about how children master the complex skill of reading. One area of reading research that has been studied extensively targets factors contributing to children's difficulties encountered when learning to read. Evidence from longitudinal and intervention studies laid the groundwork for current evidence-based practices.

One seminal longitudinal study examining reading achievement levels of students was conducted by Juel (1988). When the study was initiated, there were 129 first-grade students in the study. At the conclusion of the four-year study, 54 students out of the original 129 students were still participating. Benchmark assessment at the beginning of the study identified 29 students in the bottom quartile of reading comprehension, and the reading achievement of these students was monitored for the duration of the study. In first grade, the average reading comprehension level for this group of students was mid-kindergarten. In fourth grade, 26 out of the 29 students whose reading achievement was significantly below average in kindergarten continued to be at least six months behind in reading. As reported by Juel (1988), "the probability that a child would remain a poor reader at the end of fourth grade, if the child was a poor reader at the end of first grade was .88" (p. 440). The study indicated that the primary factor impeding the progress of students was poor decoding skills, such as sounding out words.

Francis et al. (1996) tracked 403 students for a nine year period, from first through ninth grade, in the Connecticut Longitudinal Study. When reading levels of this group of students were initially assessed in first grade, 69 students achieved reading cluster scores below the 25th percentile. At the conclusion of the study, 67 students demonstrated reading achievement below the 25th percentile. This study reported that the reading levels of all students plateaued at approximately 15 years, although the achieved reading level of students with reading deficits was significantly lower than for students with grade level reading skills. Francis et al. (1996) concluded that individual growth curve analyzes may be helpful tools in identifying students who are at high risk for developing reading difficulties. The authors of this study investigated whether early reading delays represent a developmental lag, in which reading skills emerge over time and children catch up, or a reading deficit. The deficit model was defined as children who "fail to read proficiently because of the absence of a skill that never develops sufficiently" (Francis et al., 1996, p. 3). The results of this study indicated that students who were initially delayed in mastering early reading skills continued to demonstrate reading difficulties as they reached high school age. Based on this nine year study, early reading delays rarely represented developmental lags, as previously suspected.

Twenty-three of 240 kindergarten students whose skills in the areas of letter-name knowledge, phonological awareness and rapid automatic naming of digits were indicative of possible reading failure were identified in a study by Torgesen & Burgess (1998).

13

Fourteen of the 23 students at-risk kindergarten students were in the bottom 10% of word reading skills at second grade.

Wagner, Torgesen, Rashotte, Hecht, Barker et al. (1997) tracked reading development of 216 students from kindergarten through fourth grade.  Areas assessed included phonological processing, word-level reading and vocabulary.  Results indicated that "individual differences in phonological awareness were related to subsequent individual differences in word-level reading for every time period examined" (p.468). The study concluded that individual differences in phonological awareness continued to be related to word-level reading through fourth grade.

In a study of 945 students in kindergarten through second grade, Schatschneider and colleagues (2004) examined the relationship of early literacy skills to later reading achievement.  Three emergent literacy skills measured at the beginning of kindergarten (letter naming speed, letter knowledge and phonological awareness), were closely related in their ability to predict later word identification skills.  Letter naming speed was predictive for reading fluency.  The authors reported that assessments conducted at the beginning of kindergarten, as well as those conducted at the end of kindergarten, demonstrated stability with later reading outcomes.

As mounting evidence revealed concerns about  the long-lasting impact of reading failure in the early elementary years, a diverse group of researchers, scientists, educators and policy makers formed two consortiums of reading experts charged with identifying reading practices that were scientifically validated.  The two consensus panels

concentrated efforts on identifying practices that supported earlier identification and

effective interventions for students at-risk of reading failure. The first of the reports

commissioned by the U.S. Department of Education was *Preventing Reading Difficulties*

*in Young Children* (Snow et al., 1998).   The second report, which built upon the findings

of the first report, was published two years later. That report, which was a research

synthesis from the National Reading Panel (National Institute of Child Health and Human

Development [NICHD], 2000), was titled *Teaching Children to Read:  An Evidence-*

*Based Assessment of the Scientific Research Literature on Reading and its Implications*

*for Reading Instruction.*

One conclusion of these two reports indicated that formal reading instruction in

kindergarten should become a high priority.  Torgesen (2002) reported that the large

number of students at upper elementary grades whose reading skills fell significantly

below grade level indicated a need for increased emphasis on the quality of reading

instruction at early elementary grades.    In addition to the emphasis on earlier initiation

of formal reading instruction, the two consensus reports identified factors that increased

the likelihood that students would continue to struggle becoming fluent readers.

Instruction based upon scientific evidence was found to be a significant factor in

improving student achievement; therefore, the expectation was established that all

reading instruction should be research-based.

The findings of the National Reading Panel (NRP) established three critical

components of reading instruction that became the foundation for No Child Left Behind,

one of the major educational reform acts of the decade.  These three principles included

high quality instruction, earlier reading instruction and scientifically research-based

reading instruction.  Schrag (2003) stated that recommendations of NRP became the

cornerstone of NCLB's "absolute emphasis on reading (pg. 11)."

Based upon accumulating evidence that students who do not master reading

objectives at an early age are highly likely to continue their struggles with reading,

NCLB established the goal that all students should read on grade level by third grade.  To

ensure achievement of that goal of proficiently by third grade, NCLB increased the focus

on provision of effective interventions in the early elementary grades and prioritized

formal reading instruction for students in kindergarten.   Prior to NCLB, kindergarten

literacy instruction focused on isolated letter and sound recognition.  The new law

required reading levels of kindergarten students be identified prior to first grade.

Another hallmark for NCLB was the emphasis on improved accountability to

document students' achievement of grade level skills.  NCLB increased the focus on

including students with disabilities in accountability measures to ensure that this group of

students was achieving higher standards.   As reported in Albritten, Mainzer & Ziegler

(2004) "with the passage of NCLB, the federal government squarely recognized that

school systems must be accountable for the learning progress of students with

disabilities" (p. 74).  Furthermore, NCLB implemented the expectation that most students

with disabilities will become proficient in reading and math by 2014.  To measure state

and local progress toward the goal of reading and math proficiency, NCLB implemented

a single, integrated accountability system (Schrag, 2003).   States were required to

combine "student and school accountability systems" (Albritten et al., 2004, p. 74).

According to Rafdal, McMaster, McConnell, Fuchs, & Fuchs (2011), NCLB and IDEIA

increased academic expectations for students with disabilities in order to address

unsatisfactory academic gains for students with disabilities (Rafdal et al., 2011).   When

NCLB mandated inclusion of students with disabilities in accountability measures, it also

required that students with disabilities have increased access to general education

curriculum.

Snow et al.( 1998) and NICHD( 2000) revealed shortcomings in the overall quality

of reading instruction, with evidence indicating that the quality of reading instruction was

especially lacking for schools serving large numbers of lower income and minority

students.  Justice (2006) noted that "many children who perform poorly in reading

achievement do so because schools fail to provide adequate instruction to at-risk children

who exhibit significant risk factors that make learning to read very difficult" (p.285).

Justice (2006) reported that through the provision of high quality instruction, especially

instruction targeted for groups of students at high risk of reading failure, students who

were previously thought to have cognitive deficits could achieve grade appropriate

outcomes.

Studies by Vellutino et al. (2006) found that "early and long-term reading

difficulties in most children are caused primarily by experiential and instructional deficits

rather than biologically based cognitive deficits" (p. 167).  Numerous studies

17

demonstrated that when students receive effective interventions in the early elementary

years, many long-term reading problems can be prevented.

To address the high rates of minority students in special education, IDEIA

reiterated its intent that students who have not received appropriate instruction in the

essential components of reading should not be identified as students with disabilities.

The increased focused on high quality instruction for students in all minority groups and

socioeconomic status resulted from research findings that stated inadequate instruction

was a primary factor contributing to lagging reading achievement of students in the high

risk groups (Justice, 2006; Vellutino, 1996). An increased focus on provision of

universal high quality instruction was prioritized to ensure that students in all public

schools were given a strong foundation of reading skills consisting of evidence-based

practices.

Research targeting the efficacy of balanced reading programs was based on

students from all levels of reading achievement. However, specific research about most

effective programs for students at-risk for reading failure supported the need for

increased explicit, systematic and direct instruction. Accumulating longitudinal and

intervention research revealed that students who had difficulty mastering essential

reading components required instruction that was targeted to individual deficit areas.

Torgesen reported "prevention and intervention research since the 1980s demonstrates

that at-risk and struggling readers show greater reading growth with interventions that

focus directly on strengthening these (five) components than with methods that do not

address them in a comprehensive manner" (p.98). Systematic instruction should be provided in each of these areas, although not all students require the same degree of systematic instruction in each skill area. Furthermore, schools are responsible for implementing a system whereby students at-risk for reading failure are identified early in the school year, and instruction is matched to individual student needs.

Increasing evidence about early literacy development resulted in changes in reading instruction for kindergarteners. Consistent research findings (Torgesen, 2002) indicated that without systematic instruction from the beginning of formal schooling, students developed achievement gaps that were difficult to overcome, even when effective instruction was provided in later elementary years.

<center>**Provision of Early Differentiated Interventions**</center>

If students have received high quality classroom instruction, yet continue to have difficulty mastering early literacy skills, teachers are required to be proactive addressing the deficits. Despite consensus belief that early and appropriate instruction can prevent reading difficulties, there has been a long-standing practice that reading interventions are not provided until second or third grade, at which point students' reading deficits have increased to the degree that achieving grade level literacy is unlikely (Gersten et al., 2009). The Executive Summary of the National Research Center on Learning Disabilities (2003) indicated that differentiated instruction should be implemented in the earliest stages of literacy development, such as pre-kindergarten and kindergarten, rather than waiting until achievement gaps have increased. Many governmental and non-profit

<center>19</center>

entities have issued strong statements regarding the critical need for early intervention, including the report from the Joint Commission on Excellence in Special Education (United States Department of Education, 2002)  which stated that reforms of the educational reforms should focus on "early identification and swift intervention, using scientifically based instruction and teaching methods" (p. 9).   When early intervention is delayed and students do not receive effective instruction and intervention, their achievement gaps widen, and deficits become more difficult to remediate.   Additional evidence reported by Vellutino, Scanlon, Small & Fanuele (2006, 2007) indicated that reading interventions for students who were struggling in kindergarten and first grade resulted in prevention of early difficulties as well as reduction of longer-lasting reading difficulties.

Foster & Miller (2007) summarized findings from the Early Childhood Longitudinal Study (ECLS-K), which was sponsored by the U.S. Department of Education.  This comprehensive study followed 12,621 students over a four year period and revealed that students who enter kindergarten prepared to engage in phonics are ready to transition to the next step of literacy development at first grade.  Students who did not master functional decoding skills by the end of first grade were significantly behind in their reading fluency and comprehension by third grade (Foster & Miller, 2007).

An additional study illustrating the importance of early intervention compared two groups of kindergarten students; one group began explicit, systematic interventions

during the first month of the year, while the second group began interventions in January.

This study, conducted by Cooke, Kretlow, & Helf (2010), included 93 kindergarten

students.   Students who began kindergarten at greater risk for reading failure were able

to close the gap when they received intensive interventions for both semesters, whereas

those students who began to receive interventions in January did not progress sufficiently

to master grade level objectives.

**Characteristics of Effective Instructional Strategies and Arrangements**

While research has demonstrated the crucial nature of differentiating instruction

from the earliest stages of formal schooling, researchers have investigated specific

practices that positively impact reading achievement.  Instructional components included

strategies and arrangements, such as group size.

One aspect of instruction that has been frequently explored is the degree of

directness or explicitness with which objectives are presented**.**  Convergent studies have

indicated that students at-risk for reading failure require instruction that is more

systematic, direct and explicit.  Baker et al. (2010) indicated that "systematic and explicit

reading instruction has been embraced by virtually every authoritative analysis of

beginning reading instruction," (p. 7).   Torgesen (2004) defined explicit instruction as

that which "does not leave anything to chance and does not make assumptions about what

skills and knowledge children will acquire on their own" (p. 363). Elements of systematic

instruction included building skills gradually, and introducing skills in isolation before

integrating them with other skills.  Gersten et al. (2009) reported that explicit instruction

should include a high level of teacher-student interaction with frequent practice and clear, specific corrective feedback.  Explicit instruction also includes increased levels of scaffolding, which was described by Foorman & Torgesen as "finely tuned interactions between teacher and child that support the child in accomplishing a task that he or she could not do without the teacher's help" (2001, p.209).

Torgesen (2002) summarized outcomes from five intervention studies with kindergarten through second grade students.  All five of the studies provided systematic and explicit interventions for students at-risk for reading failure in at least one of the following essential reading elements:  phonemic awareness, phonemic decoding and/or fluency.  When systematic and explicit interventions were provided with sufficient intensity, approximately 95% of the subjects were on grade level by third grade.  It was reported that the additional five percent of children in the study who did not master grade level reading may have had learning disabilities, requiring specially designed instruction.

Foorman and colleagues have conducted multiple studies investigating characteristics of effective phonemic awareness instruction, which has been found to be a crucial early reading skill.  In a study of 285 first and second grade students, Foorman et al. (1998) found  that  "students receiving direct code instruction improved in word reading at a faster rate and had higher end-of-year scores than students in the implicit code group"  (p. 26).  Direct code instruction included explicit instruction in letter-sound correspondences, which were reinforced in texts with controlled vocabulary.  Implicit

code instruction included instruction in the alphabetic code during the reading of trade books.

Evidence indicated that students who were struggling to master reading skills required more review and reinforcement, and skills should be taught to mastery. The Institute of Educational Science (Gersten, et al., 2009) reported that less direct and explicit activities, such as independent silent reading or reading in pairs, were more beneficial when students' skills improve.

An additional study by Foorman, Chen, Carlson, Moats, Francis et al., (2003) involved 4,872 kindergarten students and indicated that "direct systematic phonemic awareness and phonics instruction can raise the performance of low-ability kindergarten students" (p. 26). Foorman et al. (2003) reported that direct phonemic awareness and phonics instruction may not be as beneficial for students who have mastered these skills.

Another factor that has been shown to be critical for students at-risk for reading failure is whether instruction is teacher-managed or child-managed. In a study of 108 first-grade students, Connor, Morrison, & Katch (2004) found that "specific patterns of instructional activities differentially predicted children's decoding skills growth" (p. 305). Students who began school with low decoding and vocabulary skills exhibited greater improvements in decoding skills in classrooms in which more time was spent on teacher-managed explicit decoding activities than on child-managed meaning-focused activities. These authors also found that as students' reading skills improved, teachers

altered the type of instruction they provided, with more explicit instruction used for students struggling to master early literacy concepts.

In a similar study comparing teacher-directed and student-directed instruction at the preschool level,   greater improvements were seen in alphabetic and letter-word recognition growth when teacher-managed activities were used; whereas greater increases were seen in meaning-focused skills, such as vocabulary, when activities were child-managed.   These authors delineated types of explicit and implicit activities that were observed in kindergarten and preschool classrooms.   The following activities were reported to be explicit:  alphabet activity, letter sight-sound, initial consonant stripping and word segmentation.  Implicit activities included:  vocabulary, teacher read aloud, student read aloud, discussion, and conventions of print  (Connor, Morrison, & Katch, 2006).

Torgesen (2004) summarized the major hurdle that faces students at-risk for reading difficulties stating that students "must improve their reading skills *at a faster rate* than their typically achieving peers to make up the gaps in learning and skill" (p.364). More recently, in a study about RTI effectiveness, Torgesen reported that effective RTI should provide "interventions for struggling readers that are sufficiently powerful to accelerate their reading development toward grade level standards" (p.38).  When evidence-based interventions were provided with greater intensity and a higher level of directness and explicitness, the rate of progress increased as well as opportunities to close the achievement gap.

Students who are further below grade expectations require greater amounts of time in explicit instruction if they are to attain grade level skills. Interventions should focus on fewer instructional objectives so that students do not become overwhelmed. Foorman & Torgesen (2001) indicated that explicit interventions were more effective than were incidental teaching strategies. These authors also reported that students at-risk for reading difficulties required an instructional setting that provided more positive emotional support, such as encouragement and positive reinforcement, to increase their willingness to attempt challenging new tasks.

Instructional arrangements have been an additional area of research in the field of literacy difficulties. Flexible small groups have been determined to be essential for closing achievement gaps. Large group instruction has not been found to be sufficiently intense for students at-risk to progress rapidly (Vaughn, 2003). The student composition of these groups is fluid, and when students master grade level expectations, they may no longer need the higher level of direct, intense instruction.

Intervention studies conducted by Torgesen and colleagues have revealed the crucial need for direct and explicit instruction delivered in small group or individual settings. Students at-risk for reading failure require instruction that is significantly more explicit, intensive and supportive than is provided for students with average reading skills.

Torgesen (2004) studied the nature of effective strategies as well as instructional arrangements that improve the progress of students at-risk for reading difficulties. In

addition to the need for direct and explicit instruction, Torgesen emphasized that interventions should be more intensive than usually provided, defining intensity as instruction containing "more teaching/learning opportunities per day" (p. 7). Torgesen noted that intense instruction was often necessary for children who entered school with fewer instructional opportunities. While this group of students may acquire new skills at an average pace, more intense instruction was recommended so that students who are at-risk can attain grade level skills. Specifically, Torgesen indicated that 4-5 small group sessions per week of 20-45 minutes in length were generally effective, but the specific amount of time a student received intense interventions is based on grade level as well as extent of deficits.

In summarizing longitudinal and intervention studies, Torgesen stated that interventions which were provided "early, intensively and appropriately" provided children who were at-risk with early reading skills to prevent on-going reading difficulties (2004, p. 1). Identified critical features of instructional programs that decrease the risk of reading failure, including types of instructional strategies and instructional arrangements through which individual needs can be addressed are instruction that is direct, systematic and explicit and implemented in one-on-one or small group settings, wiith focus on mastery of phonemic awareness and phonics skills.

**Crucial Need for Early Phonemic Awareness and Phonics Instruction**

While research has conclusively indicated that effective reading interventions should be intense, explicit and systematic, there is also a significant body of evidence

indicating that early literacy instruction and intervention should place a high priority on improving skills in the areas of phonemic awareness and phonics. As noted by O'Conner, Fulmer, Harty & Bell (2005), students with typical emergent literacy skills began developing phonemic awareness skills early in the preschool years. Therefore, early intervention efforts should be geared toward helping students who are at-risk develop these same skills "within the windows in time that these understandings develop for typically achieving children," (p. 440). In typical phonemic awareness development, kindergarten students should blend and segment words and connect speech sounds to letter sounds by the end of kindergarten. When students are delayed in achieving these underpinnings of reading, the delays result in accumulated deficiencies. Students who do not have adequate phonemic awareness skills upon entering kindergarten have difficulty learning sounds, which leads to difficulty sounding out words. Every month that a student's early reading experiences are delayed results in fewer months for the student to practice reading. For students' reading fluency, vocabulary and reading comprehension to improve, they must experience continual reading success and practice.

There are many longitudinal studies which reflect the critical nature of phonemic awareness and phonics skills for early readers. Juel (1988) reported that phonemic awareness skills had a greater impact on first grade students' reading progress than did intelligence quotient and listening comprehension abilities. Phonemic awareness, the ability to focus on and manipulate phonemes, is the foundation of decoding skills. Juel (1988) reported that "children will not benefit from phonics instruction until they gain

some phonemic awareness" (p. 446). Juel 's conclusions also emphasized that phonemic awareness needed to be a major component of early literacy instruction in preschools and kindergarten to decrease the likelihood that students will develop reading deficits.

Effective instruction in foundational reading skills significantly increased the number of children successfully acquiring grade level skills; however, there continued to be a significant number of children who did not master reading basics when provided with only high quality, balanced, systematic instruction. Researchers concentrated on identifying instructional elements critical to the group of students who did not progress adequately with general quality instruction. Research consistently indicated that students with the greatest difficulty mastering phonemic awareness and phonics skills often had the most difficulty learning to sound out and read words fluently.

A longitudinal study conducted by Lonigan and colleagues (2000) reported findings similar to those reported in the summary from Jenkins & O'Connor (2001), which indicated that phonological awareness and letter knowledge were significant factors in a student's ability to master reading. Lonigan and colleagues tracked early literacy development of 97 children from preschool through kindergarten or first grade to determine the stability of early literacy skills. Findings indicated that "phonological sensitivity and letter knowledge accounted for 54% of the variance in kindergarten and first-grade children's decoding abilities" (p.606). Early literacy skills, such as environmental print and concepts about print, emerged during preschool and were stable from preschool through first grade, but did not appear to be highly predictive of later

28

reading skills.   Based on their results, the researchers concluded that "the developmental origins of a large component of children's reading skills in kindergarten and first grade can be found in the preschool period" (p. 606).

Based on  a meta-analysis of 70 intervention studies, Bus & Van Ijzendoorn (1999) reported on the essential role of phonological awareness skills in early reading, stated  that "phonological awareness should be considered a causal factor in learning to read" (p. 411).   Furthermore, it was demonstrated that phonological awareness skills also improved reading and writing skills.   These authors noted that children who received early training in phonological awareness were more prepared for beginning reading. Children with typically developing emergent literacy skills began formal schooling with a solid foundation of phonological awareness skills, such as rhyming; however, children with reading difficulties were more likely to struggle to acquire the same foundational skills.   Phonological awareness training was found to produce the greatest effect sizes in preschool children, with effect sizes decreasing in kindergarten and subsequent grades.   A consistent finding was that phonological awareness programs were most effective when paired with visual representations of sounds or letters.

Vadasy, Sanders & Abbott (2008) conducted a study addressing the effectiveness of intensive code-based interventions.   Their research indicated that "early reading interventions have been designed to provide students with a strong phonological and alphabetic base for learning to decode" (p. 52).   These authors studied the reading achievement of 79 first graders with reading skills in the lowest quartile, and the progress

of these students was monitored through the end of third grade. This group of students received supplemental explicit alphabetic and decoding instruction provided during the first grade year by trained paraprofessionals. Approximately 80% of the original group of students made gains sufficient to place them in the average range of reading achievement at the end of first grade. The other one-fifth of the students demonstrated improvements in their reading skills when provided with first grade interventions; however, they progressed more slowly and continued to receive supplemental code-based interventions in second grade. All 57 students who were enrolled until the end of the study demonstrated average reading fluency, decoding, word reading and comprehension when reassessed in third grade. Vadasy et al., (2008) reported that "studies suggest that at-risk students who respond to kindergarten and first grade reading interventions maintain growth in word level skills and that intervention response is a predictor of subsequent growth" (p. 54).

Deficits in phonemic awareness and phonics are detectable at early stages of literacy development. Gersten et al. (2009) reported that an important indicator of future success or failure in reading was a kindergartener's ability to master segmenting phonemes and the alphabetic principle. Rafdal et al. (2011) reported that research conducted over more than 20 years indicated that kindergarteners with strengths in phonemic awareness were more successful readers, even when other factors, such as cognitive ability and social class were taken into account.

As a result of the evidence that deficits in phonological/phonemic processing are detectable as early as preschool and kindergarten, the consensus reports from National Research Council (Snow, et al., 1998) and National Reading Panel (NICHD, 2000) emphasized the essential nature of early, proactive instruction in the areas of phonemic awareness and phonics. Phonemic awareness and phonics instruction were most effective for students in preschool and kindergarten rather than waiting until first grade or later to begin the process (NICHD, 2000).

Torgesen (2002) reported that students with poor phonemic awareness at the preschool and kindergarten levels were more likely to be poor readers in fourth grade than students with strong phonemic awareness skills. These students consistently demonstrated difficulties understanding and applying the alphabetic principle to decode words at early developmental stages, which impacted reading fluency and comprehension. Torgesen (2002) found that children entering school with limited knowledge about phonemic features of words were at high risk for difficulties responding to early literacy instruction.

Foundational studies about early literacy development have yielded evidence that there are two distinct patterns of literacy deficits present in kindergarten students (Foorman & Torgesen, 2001; Torgesen, 1999). One group of children entered formal schooling with limited exposure to literacy experiences. These children, whose backgrounds often included low income and minority factors, began school with broad delays in pre-literacy skills, including oral language, vocabulary and print concepts as

well as phonemic awareness and phonics. The second group of young children at-risk for reading difficulties was comprised of students who had rich exposure to language and literacy; however, this group of students demonstrated more specific deficits in the areas of phonemic awareness and phonics and had difficulty learning to read words accurately and fluently. Students who demonstrated deficits in these two prerequisite skills had difficulty mastering fundamental word reading skills, upon which all higher level reading skills are founded. Both the group of students with broad literacy deficits as well as the group with the more specific pattern of deficits required intense instruction in the critical areas of phonemic awareness and phonics instruction if they were to master these critical reading skills. Children entering school with adequate general verbal ability and specific cognitive weaknesses in the phonemic domain may not require targeted, focused instruction in vocabulary, fluency and comprehension once they have mastered the pre-requisite skills of manipulating sounds in words. However, children entering school with broader delays in pre-reading skills may continue to need targeted, focused interventions in vocabulary, fluency and comprehension after mastering the prerequisite skills of word level reading, phonemic awareness and phonics (Torgesen, 2004).

When prerequisite word-level reading skills are not mastered at an early age and students do not begin reading early in their school careers, their inability to read results in inadequate vocabulary growth (Cunningham & Stanovich, 1998) as well as difficulty learning skills in all other school subjects. Additionally, early reading failure often

results in decreased motivation and the development of negative attitudes regarding school.

**Interventions for Phonemic Awareness and Phonics Skills**

Instruction in phonemic awareness focuses on teaching how to manipulate phonemes in spoken words. Phonics teaches students how the sounds of speech are represented by letters and spelling. Phonemic awareness is a prerequisite to phonics and makes phonics meaningful; without adequate phonemic awareness skills, kindergarten students may have difficulty associating auditory sounds with their written representation, letters and words. Gersten et al. (2009) reported that 20 minutes of daily instruction for kindergarteners has been demonstrated to have a positive impact on their acquisition of early reading skills, such as phonemic and letter-sound correspondence. Gersten and colleagues stated that "the critical skill for kindergarteners to master is the ability to segment phonemes, a key indicator of future success or failure in reading" (p. 20). Letter-sound identification, the alphabetic principle and beginning decoding skills along with solid comprehension of the phonemic elements of words lead to accurate and fluent decoding. While all students can benefit from core classroom instruction in phonemic awareness and phonics skills, students at-risk for reading difficulties require more highly targeted, direct, explicit and systematic instruction in these areas than do students not demonstrating an elevated risk for reading difficulties.

Gaskins, Ehri, Cress, O'Hara and Connelly (1997) reported that students at-risk for reading failure do not incidentally learn unstated complexities of word learning.

Torgesen, Wagner, Rashotte, Rose et al. (1999) found that students with deficits in

phonemic awareness need to be directly taught connections between letters in print and

sounds in words.  Effective code-based interventions combined phonological awareness

training with letter-sound correspondences (Vadasy et al., 2008).

A meta-analysis conducted by the National Reading Panel (NICHD, 2000)

revealed that explicit instructional approaches to teach phonemic awareness skills

demonstrated significant effects, especially for kindergarteners.  This consensus report

also indicated that phonemic awareness instruction was most effective when phonemes

were combined with letters and when explicit instruction focused on one or two types of

phonemic awareness skills at a time.  Significant improvements in phonemic awareness

skills were observed when instruction was provided in small groups.

Torgesen (2004) summarized conclusions of three intervention studies including

children with phonemic deficits and found that the most phonemically explicit

intervention produced the greatest growth at the word reading level.   The report

*Preventing reading difficulties* (Snow et al., 1998) summarized studies which found that

when students were taught to read with direct instruction in phonemic awareness and

phonics, all but 3-5% were successful at learning to read, including students with mild

disabilities.

Cavanaugh et al., (2004) conducted a meta-analyses of 27 intervention studies of

reading interventions for kindergarteners at-risk for reading difficulties.  Based on their

study, "reading interventions were effective for improving reading outcomes for

kindergarten students with disabilities and those at-risk for reading difficulties" (p. 9).

Twenty-two of the 27 studies examined the effectiveness of phonological awareness training, while the other five studies utilized interventions such as whole language, storybook reading and computer assisted instruction. Phonological awareness interventions included letter name and sound identification, segmenting and blending sounds and rhyming. The researchers found that "the majority of phonological awareness-based interventions resulted in high effect sizes, while the remaining few other intervention types resulted in small to moderate effects" (p. 13).

Scanlon, Vellutino, Small, Fanuele & Sweeney (2005) followed 460 students from the beginning of kindergarten through the end of first grade. Data indicated that interventions with emphasis on "development of phonological skills was more effective in reducing the incidence of treatment resistance than the program that emphasized engaged the children in reading connected text (p. 209).

**Response to Intervention: A Framework to Proactively Address Reading Difficulties**

In order to provide guidance for early identification and high quality instruction adapted to the needs of students at-risk for reading failure, the Response to Intervention model was developed. Response to Intervention is the concept of using a student's response to intervention to guide the type and intensity of instruction. The concept of using a student's response to instruction to determine changes in reading programming has been advocated by educators for years.

RTI consists of a tiered system of intervention to ensure that all children in kindergarten or first grade are monitored for predictive indicators of reading failure (Snow et al., 1998). Students identified as at-risk are to be provided with supplemental instruction matched to their specific needs. The essential components of RTI were adopted in both IDEIA and NCLB, in order to provide an evidence-based process for preventing and intervening with students at-risk for reading difficulties.

IDEIA's goals in adopting RTI practices included reducing the need to identify students with disabilities in order to address their learning needs. In addition to reducing the number of students eligible for special education, RTIs focus on evidence-based practices is helpful in differentiating between students with learning disabilities and students who are delayed because of insufficient educational opportunities (Justice, 2006).

RTI can be used as a tool to support students with disabilities in general education classrooms. By increasing differentiated instruction in the general classroom setting, more tailored instruction becomes accessible for students of varying ability levels, including those with disabilities. General and special educators are encouraged to work together, combining effective research-based reading instructional practices in both fields to provide instruction in the least restrictive environment. Rafdal et al., (2011) reported that when RTI was used as designed, it decreased the need for more intensive and restrictive interventions. High quality classroom instruction, which is the foundation

of RTI, can often be effective in meeting the needs of most students, including those with disabilities.

Baker, Fien & Baker (2010) reported that inadequate instruction, which was especially apparent in the case of minority students, often caused them to be inappropriately placed in special education. A report developed by a panel of reading experts, *Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades [RTI Practice Guide] (*Gersten et al., 2009*),* stated that without the provision of high quality instruction for students with increased risk factors, students were often diagnosed with disabilities. This occurrence was identified as a possible contributing factor to overrepresentation of minority students identified as eligible for services in special education.

While NCLB's aims in mandating RTI are consistent with those of IDEIA (Vaughn et al., 2007), NCLB has an additional purpose for RTI, which is to help schools reach standards for accountability in reading. Prior to NCLB, national and state accountability measures excluded some students with disabilities. RTI was seen as a vehicle to improve achievement of students with disabilities, and states adopted RTI policies to assist them in meeting accountability standards, especially for students with disabilities and students at-risk for reading difficulties.

Along with increased academic expectations, accountability is a central theme of NCLB. The emphasis on accountability for assessment and instruction of reading skills at the kindergarten level increased pressure on state educational systems to implement

37

programs, including standardized testing, to document achievement for early elementary students. The Texas Primary Reading Index (TPRI) is one instrument that is used in Texas for documenting reading skills in grades kindergarten through third grades. Evidence-based practices for reading instruction of young elementary children are mandated to improve reading achievement, especially for those students at-risk for reading difficulties and students with disabilities.

As described by the *NASDSE/CASE White Paper on RTI* (2006), RTI includes the provision of high quality, research-based instruction and interventions differentiated for student needs. An essential feature of RTI is frequent progress monitoring to make decisions about changes in instruction and the use of student response data for making important educational decisions. RTI should be used for making decisions about general, compensatory and special education, creating a well-integrated system of instruction intervention guided by outcome data. The use of these systems will ensure more timely provisions of effective interventions for students who are low achieving.

In RTI, there are several core evidence-based practices upon which all instruction and intervention is based. Evidence indicates that students need differentiated instruction; however, Gersten et al. (2009) indicated that students whose skills are below grade expectations have a greater need for explicit instruction in order for the student to achieve grade level skills. Another premise of RTI is that all instruction is driven by data, and there is evidence of progress monitoring. Students whose reading skills are on level benefit from data-driven decision making, as do students who are struggling to

master literacy skills. Students who demonstrate reading deficits require instruction that is more closely monitored and adjusted. Utilization of multiple layers of instruction and intervention requires flexibility of grouping based upon specific weaknesses. Additionally, supplemental interventions are most effective when a limited number of deficits are addressed at one time. Gersten et al. (2009) also reported that when RTI is implemented effectively, characteristics of instruction were consistent across different layers or tiers. Primary factors differentiating instruction at one level of intervention to a higher level include specificity of grouping, intensity of instruction, teacher feedback and practice opportunities.

As described above, on-going data collection and progress monitoring, as well as increasingly differentiated and intense instruction, are foundations of the RTI model. Additional elements that are essential to RTI include universal screening and the provision of high quality, evidence-based reading instruction which is manipulated through a multi-layered or tiered system of instruction and intervention.

## Critical Features of Response to Intervention

The first element of RTI, universal screening, is designed to provide information about students who enter school with literacy delays or who are at increased risk for developing reading deficits so that initial instruction can be differentiated to address the diverse needs of all students. Universal screening is performed early in the child's formal schooling, typically in kindergarten, although recent evidence has indicated the need for preschool screening. Screening provides initial data upon which the general classroom

instruction is initiated.  Fuchs & Fuchs (2006) recommended that students at-risk be identified within the first month of school each academic year through the screening process.  While universal screening is conducted with all students, it is essential for students at-risk for literacy difficulties, and is crucial for prevention of reading failure.

In the past two decades, a convergence of evidence has revealed factors that are crucial to assess during the universal screening process.  These factors have been identified as being most likely to differentiate students who are developed readers from those who are struggling in the beginning stages of formal literacy instruction.  Early literacy abilities that were predictive of future risk for reading difficulties were found to be letter name knowledge and phonemic awareness, such as syllable and phoneme deletion.

Kindergarten screening should measure letter knowledge and phonemic awareness as well as vocabulary (Gersten et al., 2009).  According to the authors, students whose performance on the beginning of the year screening indicated an increased risk for reading failure should be rescreened at least two times during the kindergarten year.  Both benchmarks and growth rates should be utilized to determine the need for interventions.  Mellard, Stern, & Woods,  (2011) found that when  screenings were conducted 2-3 times  during the year, a passing rate of less than 80% may be indicative of an issue with effectiveness of core curriculum.  Quality of core classroom instruction may be lacking, and class-wide interventions may be needed. The *RTI Practice Guide* recommended that students who fell below benchmarks at screening

should receive a minimum of 5 weeks of intervention to determine if they were responding to higher levels of differentiated instruction (Gersten et al., 2009).

Data obtained from the initial screening serves two purposes:  to determine the starting point for instruction and to serve as the baseline from which future growth will be measured.   RTI's requirements for data-driven decision making and progress monitoring are based on consistent research indicating that data-based decisions are essential for effective instruction and intervention.  Frequent data collection and progress monitoring can ensure that teachers track student achievement to determine the need for interventions which supplement core classroom instruction.  When instructional decisions are not based upon data, instructional programs may not be adjusted to determine level of intensity and specific deficits that need to be addressed.  Data can increase teachers' awareness of reading proficiency, allowing for more informed decisions.

Several sources underscored the importance of providing teachers the resources to collect and interpret data as well as plan instruction based on data (Gersten et al., 2009). Fuchs & Deshler (2007) reported that short-term progress monitoring was an efficacious method to decrease the provision of costly services to students who have progressed satisfactorily and no longer require more intense interventions.

Regardless of whether students are receiving general classroom instruction or more targeted interventions, data-based decisions and progress monitoring are critical. The primary sources of data are learning rate and level of performance.  Learning rate refers to a student's rate of improvement or growth over time.  Data about learning rate is

compared with the student's own learning rate as well as the growth rate of peers. This is typically referred to as growth trajectory. Level of performance refers to a student's achievement relative to national, state and local standards. Data about a student's personal growth rate and level of performance are collected at varying intervals based on a student's individual needs.

Students who are struggling to master reading skills should be monitored more frequently than students whose skills are on-level. Mellard et al. (2011) indicated that students in kindergarten warranted more frequent progress monitoring because young students progress very rapidly through phrases of literacy development, and infrequent monitoring often resulted in widening achievement gaps. Students at-risk for reading failure should be monitored more frequently to determine the need for more targeted instruction, which includes increases in explicitness, directness and intensity (Gersten et al., 2009).

According to the Texas Education Agency (TEA, 2008), students receiving targeted instruction should have reading probes administered once per week. Recommended tools for progress monitoring include benchmarks and criterion-based measures, such as number of letters or sounds named, graphing of progress and Developmental Reading Assessments. Diligent progress monitoring is essential to determine effectiveness of interventions and the need for changes in instruction.

In the RTI framework, data collection and progress monitoring may indicate that a student needs to receive a higher tier of targeted instruction, or conversely, progress

monitoring may indicate that a student has mastered grade-level skills. When a student's reading skills are on-level, then the student no longer has a need for on-going interventions supplemental to core classroom instruction. Data collection may also indicate the need for a student to be moved to a different small group, which more closely aligns with specific deficits.

Progress monitoring and data collection are used to determine the growth rate of a student to measure whether the student's growth rate is increasing at an adequate pace to allow him/her to close achievement gaps. To determine adequate progress, individual student data is compared to expected norms of reading levels. Additionally, the student's growth is measured by his own rate of skill acquisition.

One of the most crucial features of RTI is the provision of school-wide, scientifically-based instruction, which has been related to improved outcomes in reading (Foorman, 2007). This level of instruction is often referred to as general or core classroom instruction, or Tier 1 instruction. In Texas, the core class instruction must be aligned with the Texas Essential Knowledge and Skills (TEKS). According to the National Association of State Directors of Special Education and Council of Administrators of Special Education [NASDSE/CASE] (2006), eighty to eighty-five percent of students master grade level objectives with provision of high quality core classroom instruction. High quality instruction consists of balanced, explicit and systematic reading instruction and contains both code-based and meaning-based elements. Gersten et al. (2009) reported that high quality Tier 1 instruction included differentiated instruction based on

specific deficit areas.   For example, if a student's deficit is in the area of comprehension, provision of a commercial program targeting phonological skills is not an effective intervention.    At Tier 1, the teacher modifies the classroom reading program to address the needs of all students, with special focus on students experiencing early literacy difficulties (Vellutino et al., 2007).

A critical component of Tier 1, quality core instructional programs is small group instruction with groups comprised of students with comparable skills and needs.  At Tier 1, small group instruction can increase the teacher's ability to provide differentiated instruction based upon on-going progress monitoring.   Students with specific weaknesses in phonemic awareness can be grouped with other students requiring similar focused instruction.    Small group reading instruction provides teachers the flexibility to provide higher degrees of explicitness and directness to students with specific deficits.   While explicit instruction and practice is not necessary for all students, intervention researchers report that explicit and direct instruction is required for students who are at-risk for reading difficulties, even at the Tier 1, or core classroom level of instruction (Torgesen, 2004).   For students reading on grade level, core classroom instruction includes opportunities for less direct and explicit activities, such as independent reading. Independent reading is not as effective for students needing more targeted instruction (Gersten et al., 2009).

As determined by frequent progress monitoring, some students may not make adequate gains when receiving only high quality core classroom instruction (Tier 1).

When students do not progress satisfactorily, schools often utilize a problem-solving approach, providing support to teachers to improve student achievement. Through the RTI model, instructional staff members collaborate to determine strategies that may be more effective with an individual student. The team of instructional staff members is multidisciplinary and develops interventions for improving a student's progress. While these teams are referred to by different titles, such as Student Support Team (SST), their consistent objective is to enhance school- wide collaboration in order to increase students' success. In addressing a student's achievement deficits, the Student Support Team is also charged with determining whether the student's lack of progress may be related to ineffective general classroom instruction.

Often the recommendation of the SST is to increase intensity and directness of instruction, or Tier 2 targeted interventions. Research indicated that 15% of students could not progress satisfactorily with core classroom instruction and needed targeted, Tier 2 interventions (NASDSE/CASE, 2006). Gersten et al. (2009) reported that Tier 2 interventions were most effective when they were "compatible with their school's core reading program and provide intensive small group instruction in three to four foundational skills" (p. 20). Justice (2006) reported that Tier 2 interventions should "duplicate and extend" (p. 289) core classroom instruction. Tier 2 interventions advance at a rapid pace and teach to mastery as well as provide higher levels of instructional scaffolding. Within small groups, individual students may need additional instruction in different targeted areas. Just as with Tier 1 instruction, on-going data collection and

progress monitoring are essential.  When students are receiving more intense, targeted,

focused instruction in Tier 2, data is used to determine if the student is progressing at an

adequate pace and if barriers are impeding progress.  Modifications to Tier 2

interventions are data-driven.  In the *RTI Practice Guide* (2009), it is recommended that

intense instruction consist of small group interventions 3-5 times per week for 20-40

minutes.   As noted by Fuchs, Compton, Fuchs, Bouton & Caffrey (2011), reading

interventions for students who are at-risk for reading difficulties should be research based

for that specific group of students.   While some types of reading curricula may be

effective for students with average reading skills, the same programs may not be

evidenced based for students at-risk.

To determine the long-term effectiveness of Tier 2 interventions, researchers have

conducted follow-up studies tracking student achievement after success was

demonstrated with Tier 2 interventions.  Vellutino et al. (1996) reported first-grade

students who were identified as at-risk mastered grade level reading skills and continued

to demonstrate grade-level reading achievement one year after completion of tutoring

sessions.  Coyne, Kame'enui, Simmons & Harn (2004) followed up on kindergarten

students who received 7 months of supplemental code-based interventions.

Kindergarteners who responded well to intense interventions continued to master grade

level reading skills in first grade.   Vadasy et al. (2008) reported that "these studies

suggest that at-risk students who respond to K-1 reading interventions maintain growth in

word level skills and that intervention response is a predictor of subsequent growth" (p. 54).

When students receive Tier 2 targeted interventions for four to six weeks, there may continue to be a small group of students who do not progress adequately despite increased direct, explicit and intense instruction provided through RTI levels. These students are often referred to as "nonresponders" because they are not responding to research-based interventions. For this group of students, Tier 3 interventions are recommended, which generally include increasing levels of intensity, explicitness and more one-on-one interventions. In some models of RTI, Tier 3 includes a referral to special education or other specialized services. For many students who did not master grade level skills with Tier 2 interventions, research indicated that these students were likely to be resistant to treatment and may have learning disabilities, requiring specially designed instruction. However, the RTI framework, as well as IDEIA and NCLB, emphasized it is essential that high quality, increasingly intense interventions must be attempted before special education is considered. The report by NASDE/CASE indicated that five percent of students require Tier 3 interventions.

NCLB prioritized early literacy development through the Reading First and Early Reading First Initiatives and grants, while IDEIA established a provision that up to 15% of a school district's IDEIA funding could be used to prevent reading difficulties (Foorman, 2007). These policies supported the development of the RTI framework.

Bursuck, Munk, Nelson & Curran (2002) surveyed kindergarten and first grade teachers regarding their knowledge and use of research-based reading instruction.  The survey instrument, *Teacher Attitudes of Early Reading and Spelling,* (Bos & Mather, 1997), compared instruction in the general categories of implicit, whole Language and explicit phonemic awareness and phonics.   Results included 549 teachers in Northern Illinois and revealed "a significantly more favorable attitude toward explicit reading approaches" especially for students who are at-risk for reading failure (p. 6).   Teachers reported a higher level of knowledge about reading interventions than identification of students at-risk.  Familiar strategies for students at-risk included teaching sounds in words, sounding out words, reading fluently and reading for meaning.   While teachers reported attendance at content specific reading courses or staff development, less than half of the course content dealt with instruction for students at-risk.  Teachers did not report a high degree of familiarity with grouping practices for early reading instruction. Teachers generally responded that reading difficulties could be prevented with the provision of early interventions.  Based on the survey conducted by Bursuck et al. (2002), five hundred forty-nine kindergarten and first grade teachers demonstrated knowledge and implementation of explicit instructional approaches, which was a finding consistent with the consensus research reports, *Preventing Reading Difficulties* (Snow et al., 1998) and *Teaching Children to Read (*NICHD, 2000).

## Summary of Literature Review

The previously summarized studies reflect evidence-based practices of reading instruction and intervention, including Response to Intervention. This review of literature encompassed evidence-based practices that were considered essential for meeting the needs of students who were at-risk for reading problems.

As stated by Foorman & Torgesen (2001), "both applied and basic research on reading and reading growth over the past 20 years have produced a strong consensus about the critical components of beginning reading instruction for all children" (p. 203). The most recent federal education laws, NCLB and IDEIA, established policies to translate research into practice on a large scale.

Bursuck et al. (2002) reported that teachers of young elementary students were familiar with evidence-based practices. The authors also noted that continued staff development was needed to increase teachers' knowledge of methods for identifying and grouping at-risk students in order to maximize efficacy of interventions.

CHAPTER III

METHODOLOGY

As increasing evidence reveals the need for prevention and early intervention for students with increased risk of reading failure, federal and state guidelines have implemented guidelines to improve schools' abilities to provide timely and effective instruction and interventions.  One such guideline is the use of a Response to Intervention (RTI) model.   While principles of RTI apply to students of all grade levels and in all areas of academic achievement, a foundational principle is identification of students who are struggling as soon as they begin to demonstrate achievement gaps.

Students at-risk for reading failure often begin preschool or kindergarten with delays in their pre-reading skills.  The consensus of evidence indicates that students who lack pre-requisite skills for reading should begin receiving more highly differentiated, intense and targeted interventions as early as possible.    Since kindergarten is the grade at which the majority of students enter formal schooling, it is recommended practice that kindergarten students with achievement gaps receive more focused instruction than is usually available in a typical kindergarten classroom.

 The purpose of this study was to determine kindergarten teachers' use of RTI practices, instructional strategies, arrangements and programs. This chapter describes the development of the survey instrument as well as a description of the study's participants,

instrumentation, data collection procedures and types of data analysis utilized in the study.

## Participants

Two hundred twenty kindergarten teachers who teach in public schools within the Regions 10 and 11 Education Service Centers (ESC) of North Central Texas were identified as potential participants and received surveys. Texas is divided into 20 regional service centers. Region 10 ESC is composed of 80 public school districts as well charter schools in the following counties: Collin, Dallas, Ellis, Fannin, Grayson, Hunt, Kaufman, Rockwall and part of Van Zandt. Region 11 ESC is composed of 77 public school districts as well as charter schools in the following counties: Cooke, Wise, Denton, Hood, Palo Pinto, Parker, Tarrant, Johnson, Erath and Somervell. In each Education Service Center, 20 school districts were randomly selected through use of the www.randomizer.org site. Following selection of 10 districts per region, two elementary schools in each district were randomly selected as were four kindergarten teachers per selected school. One additional school per selected district was randomly selected to participate to increase the number of responses obtained. Several smaller districts contained fewer than four elementary schools or fewer than four kindergarten teachers in a school. Additional school districts were randomly selected from each region to compensate for the districts with fewer than four elementary schools in order to include a minimum of 220 kindergarten teachers to receive the invitation via email to participate.

Specific information about individual schools and teacher emails was obtained through school district websites.

## Recruitment of Participants

An electronic survey was sent to 220 potential participants during the fall semester of 2011. The recruitment letter detailed the purpose of the study and solicited participation of the randomly selected kindergarten teachers. Participation was voluntary and confidentiality was maintained since completed surveys did not contain identifying information. Twenty five surveys were returned, and requests were received from some participants to receive a copy of the survey conclusions. In these instances, participants voluntarily submitted their names and email addresses. The initial statement of the survey indicated that submission of the completed survey constituted informed consent.

## Instrumentation

The survey instrument was developed specifically for this study. The first step in development of the survey was a review of literature to determine important factors relating to early literacy development. Texas Education Agency created The Response to Intervention Coordinating Council to assist Texas schools in implementing RTI. In the Texas Education Agency RTI Guidance Document (2008), the State Commissioner of Education indicated that, the specific format of RTI is not required in Texas; however, "federal mandates require us to implement proactive models of instruction that allow all students to receive effective instructional . . . interventions" (pg. 1). In light of the statewide expectation that schools implement programs targeted at preventing

achievement deficits,  the instrument was designed to gather information about proactive

instructional programs being utilized in public schools in the North Texas area,

specifically at the kindergarten level.

After completion of the survey, a pilot study was conducted.  Hard copies of the

pilot survey were delivered to 20 kindergarten teachers in two north Texas school

districts, which constituted a convenience sample.  Respondents were asked to complete

the survey and provide feedback to the author regarding item content, format and clarity.

Following return of the 20 pilot surveys, the survey was revised according to feedback

obtained.

Suggested changes included clarity of directions and specificity of content.

Based on feedback, a more detailed description of Student Support Team, which

constituted one survey item, was included.   Additional feedback indicated that rate of

progress is one type of data that determines a student's need for more targeted

instruction.  A final suggestion was made that survey questions be worded in a way to

increase their applicability to a broader segment of kindergarten teachers.

The survey was composed of  five sections:   (1) demographic information;  (2)

general  training for and implementation of RTI at the kindergarten level;  (3) specific

data about instructional strategies and instructional arrangements  for teaching phonemic

awareness and phonics at the Tier 1, core classroom level;  (4)  programs used at the Tier

2 level to provide interventions in the areas of phonemic awareness and phonics; and (5)

additional supports for kindergarten students struggling to master grade level literacy skills.

The first segment contained demographics about participants including:  grade level of instruction, level of education, route to teacher certification, gender, ethnicity, educational service center in which teacher worked, size of student enrollment, general information about kindergarten reading programs utilized in specific schools surveyed, type of community in which the school district was located and amount of staff development teachers have received about RTI.

Section 2 of the instrument included 16 general questions about implementation of RTI for kindergarten students who were considered at-risk for reading difficulties. The teachers were asked to respond to a variety of multiple choice questions.

Section 3 asked kindergarten teachers to respond to 10 items using a five-point Likert scale assessing instructional strategies and arrangements used by the participant for teaching phonemic awareness and phonics skills.  The rating scale utilized the frequency terms:  always, often, sometimes, never, other.

Section 4 sought information about programs used to provide Tier 2 interventions for students struggling to master phonemic awareness and phonics skills.  Section 5 included multiple choice, yes/no and open-ended questions seeking information regarding additional services and programs available to kindergarten students who are struggling to master essential reading prerequisite skills.  Participants were asked to provide descriptive information about specific practices utilized at their schools.

## Survey Methodology

**Research Design**

A non-experimental research design was utilized to survey kindergarten teachers via email in the North Texas area and gather descriptive data regarding current utilization of instructional practices for reading. Descriptive research was used to obtain information about the current status of factors in a situation. This study sought information that was both quantitative and qualitative in nature.

Descriptive statistics were used to examine variability among the data, including relationships between variables. Questions 12, 14-17 and 19-56 were items which required quantitative responses, such as Likert and yes/no responses. Types of data analyzed included statistical data, such as mean, median, standard deviation, frequent for items and sums of items. The statistical analysis also examined correlations among sums and dependent variables.

Qualitative methodology was used to analyze and interpret responses to assess for themes from questions 13, 18, 56, 57 and 59. This data was categorized and analyzed to assess for themes in responses. These questions sought participant's narrative descriptions of types of kindergarten reading programs and interventions they used.

**Data Collection Procedures**

The Institutional Review Board (IRB) for Human Research Protection of Texas Woman's University approved the study (Appendix A) An introductory recruitment letter (Appendix B) describing the study and its purpose was emailed to randomly

selected kindergarten teachers in Regions 10 and 11 Educational Service Centers in the North Texas area.

The survey was sent to kindergarten teachers and requested that teachers participate in the survey by connecting with the hyperlink provided in the recruitment email. The recruitment email indicated the approximate time necessary to complete the survey was 15 minutes. Participants were assured of anonymity and confidentiality and could request results of the completed study by emailing the researcher. Upon viewing the survey, participants were informed that their completion of the survey constituted informed consent. The raw data was collected electronically using the tool, *PsychData*. The initial surveys were distributed followed by a second distribution from the original list three weeks later. To increase the number of surveys received, a third distribution was disseminated two weeks after the second distribution. The third distribution was sent to 20 randomly selected teachers in the previously selected school districts. Responses to the survey were maintained through *PsychData*, which increased confidentiality.

## Limitations

The surveyed population resided in the North Texas area; therefore, the sample obtained for this study may not be an accurate representation of the overall general population of kindergarten teachers in the state of Texas. While random sampling was used to select participating school districts, elementary schools and kindergarten teachers, the possibility exists that demographics of individuals returning the survey may not be comparable to the demographics of the North Texas area. The most limiting factor in this

study was the small sample size.  Results and conclusions obtained are impacted by the

number of responses received as well as demographic composition of the voluntary

participants.  Because the survey was conducted through the internet, there was no way to

collect data about non-responders.

An additional limitation that may have impacted the study is regarding the use of

terminology which is prevalent in the literature.  While the survey was revised to increase

applicability of the survey to schools which do not utilize the Response to Intervention

model, the participants' ability to provide information regarding their current

instructional practices may have been limited to schools in which RTI or similar models

are used.  The generalizability of results and conclusions is limited due to the

aforementioned factors.

CHAPTER IV

RESULTS

The purpose of this study was to examine kindergarten teachers' current practices in the provision of  reading instruction and intervention and to gain insight into implementations of evidence-based programs and RTI.  This chapter provides demographic descriptions of the survey respondents as well as quantitative and qualitative responses received.  The data presented in this chapter is presented in a format which aligns with research questions proposed in Chapter I.

**Demographic Description of Survey Participants**

Responses were received from 25 teachers currently teaching full day kindergarten in the North Texas area.   Twenty out of 25 participants provided answers to most questions.  As a result, several items were completed by fewer than 25 teachers.  All respondents were females and white/European American.  Table 1 reports demographic data, including education levels, routes to teacher certification and years of teaching experience.   While the majority of kindergarten teachers who participated had an undergraduate degree (84%), sixteen percent reported having Master's degrees.  No respondents had received doctoral degrees.   A significant majority of surveyed teachers obtained teacher certification through University-based programs (88%), and the remainder became certified through alternative certification programs (12%).  Teachers with 16 or more years of teaching experience represented the largest part of the sample

(40%), while teachers with 3-5 years of experience represented a small number of

participants (8%). Teachers with 6-10 years of experience (28%) and teachers with 11-15

years (24%) were each approximately one-fourth of the sample.

Table 1

*Teacher's Level of Education, Route to Certification and Years of Teaching Experience*

|  | Number of respondents | Percent |
| --- | --- | --- |
| Level of Education |  |  |
| Undergraduate | 21 | 84 |
| Master's Degree | 4 | 16 |
| Doctoral Degree | 0 | 0 |
| Route to Certification |  |  |
| University Based | 22 | 88 |
| Alternative Certification | 3 | 12 |
| Years of Teaching Experience |  |  |
| 3-5 years | 2 | 8 |
| 6-10 years | 7 | 28 |
| 11-15 years | 6 | 24 |
| 16 or more | 10 | 40 |

The median number of years of teaching experience was 13. Table 2 also

contains average numbers of students enrolled in each teacher's school as well as grade

configurations of each campus.

Table 2

*Average Student Enrollment and Grade Configurations of Campuses*

| | Number of Students at School |
|---|---|
| Average Student Enrollment | 487.22 |
| Grade Configurations | |
| 6 Weeks of Age through Fourth | 1 |
| PreKindergarten and Kindergarten | 2 |
| Kindergarten through First Grade | 1 |
| PreKindergarten through Fourth | 3 |
| PreKindergarten through Fifth | 2 |
| Kindergarten through Fourth | 6 |
| Kindergarten through Fifth | 0 |
| Kindergarten through Sixth | 4 |

Table 3 reports the type of community as well as regional service center in which the respondents taught. Teachers from urban communities represented a small portion of the sample (12%); teachers from suburban communities comprised 40% of the respondents while teachers from rural communities comprised 48% of the sample.

Table 3

*Community Type and Regional Service Center of Participants*

|  | Number of Respondents | Percent |
|---|---|---|
| Community Type | | |
| Urban | 3 | 12 |
| Suburban | 10 | 40 |
| Rural | 12 | 48 |
|  | | |
| Regional Service Center | | |
| Region 10 | 11 | 44 |
| Region 11 | 14 | 56 |

## Data Analysis

This study examined general information about RTI, instructional strategies,

arrangements and programs and interventions for Tier 2.   Descriptive statistics were

used to analyze quantitative data, while theme analysis was used for qualitative data.

## Analysis of Research Questions

**Research Question One: What General RTI Practices are Currently being Utilized
by Kindergarten Teachers?**

The first research question sought information about reading instruction at the

kindergarten level as well as use of the RTI process.   All 25 respondents indicated that

formal reading instruction was part of kindergarten curriculum and that they implement

tiered instructional programs, such as RTI.

One primary characteristic of evidence-based reading instruction is differentiated instruction, which includes small group instruction based on reading levels. Table 4 presents data indicative of kindergarten teachers' level of in-depth training for differentiating reading instruction. The majority of respondents (64%) reported receiving in-depth training focused on differentiating instruction while a small number of teachers (8%) reported they needed additional training.

Table 4

*Hours of In-Depth Training about Differentiated Instruction*

|  | Number | Percent |
| --- | --- | --- |
| In-depth training about differentiated instruction |  |  |
| Yes | 16 | 64 |
| Somewhat | 6 | 24 |
| More training needed | 2 | 8 |
| Training received at other districts | 1 | 4 |

Table 5 presents data targeting the amount of RTI professional development hour participants received and their level of understanding about the RTI process. Results showed participants received anywhere from a few minutes of staff development to over 20 hours of training about RTI. One kindergarten teacher who had previously taught third grade indicated she had received extensive training about RTI. Eighty-four percent of respondents indicated average to high levels of understanding about RTI. All respondents reported that they implement tiered instructional programs, such as RTI.

Table 5

*Hours of Staff Development, Level of Understanding and Implementation of RTI*

| Number of hours of staff development about RTI | Number of Respondents | Percent |
|---|---|---|
| 2-4 | 3 | 12 |
| 5-7 | 9 | 36 |
| 8+ | 7 | 28 |
| Few minutes | 2 | 8 |
| Other | 4 | 16 |
| Level of understanding about RTI | | |
| High | 6 | 24 |
| Average | 15 | 60 |
| Low | 4 | 16 |
| Implementation of Tiered Instructional Programs | 25 | 100 |

Table 6 reports the frequency with which surveyed campuses (88%) utilized a multidisciplinary team to develop intervention plans for children struggling to master reading objectives.

Table 6

*Use of Multi-disciplinary Teams*

| | Number of Respondents | Percent |
|---|---|---|
| Multi-disciplinary Team Discussion of Students At-Risk | | |
| Yes | 11 | 88 |
| No | 1 | 4 |

Table 7 focuses on data relevant to the time of the year when reading interventions begin for students who are below level. Findings which indicated that 72% of teacher participants began provision of interventions early during the kindergarten year, shortly after benchmark testing indicated that a student had skill gaps.

Table 7

*Time in the Year When Interventions Began*

| Time in the Year When Interventions | Number of Respondents | Percent |
|---|---|---|
| Early in the year, shortly after benchmark testing | 18 | 72 |
| After winter break | 5 | 20 |
| After spring break | 1 | 4 |

The next group of survey questions examined specific types of data used by teacher participants to monitor student progress. The mostly frequently used data sources included *Developmental Reading Assessment*, Guided Reading level and number of letters and letter sounds mastered. Less frequently used data sources included rate of progress (growth curve), *Dynamic Indicators of Basic Early Literacy Skills*, percentile ranking in class and Texas Proficiency Reading Index. Table 8 reflects the types of data sources utilized.

Table 8

*Types of Data Utilized for Decisions about Targeted, Focused Interventions*

|  | Number of Responses | Percent |
|---|---|---|
| *Developmental Reading Assessment* | 21 | 84 |
| Number of letters/letter sounds mastered | 18 | 72 |
| Guided reading level | 17 | 68 |
| Curriculum-based measures | 9 | 36 |
| Texas Primary Reading Index | 7 | 28 |
| Rate of progress/growth curve | 5 | 20 |
| Data from computer program | 5 | 20 |
| *Dynamic Indicators of Basic Early Literacy Skills (DIBELS)* | 4 | 32 |
| Percentile rank in class | 1 | 4 |

In addition to the data sources noted above, one survey respondent reported use of the MAP program, a computer program that charts progress.

Table 9 reports intervention data. Specifically the role of surveyed individuals who were providing targeted, focused interventions, the length of time provided for intervention sessions, and frequency with which services were provided is reported. Twenty-two teacher participants reported they provided interventions, and 13 teachers reported interventions were provided by reading specialists. The length of intervention sessions was 15-30 minutes for 68% of the respondents. Interventions were most frequently provided once daily (36%), followed by three times per week (28%), two times per week (16%) and daily, as time permitted (4%).

Table 9

*Participant Reports about Delivery of Interventions, Frequency and Length of*

*Interventions*

| | Number of Respondents | Percent |
|---|---|---|
| Providers for targeted, focused interventions | | |
| Classroom teacher | 22 | |
| Reading specialist | 13 | |
| Paraprofessional | 9 | |
| Parent volunteer | 6 | |
| Community volunteer | 6 | |
| Special education personnel | 4 | |
| Other:  ESL teacher, Art/PE/Music teacher | 3 | |
| | | |
| Frequency of interventions | | |
| Two-three times per day | 1 | 4 |
| Once daily | 9 | 36 |
| Two times per week | 4 | 16 |
| Three times per week | 7 | 28 |
| Four to five times per week | 1 | 4 |
| Daily, as time permits | 1 | 4 |
| | | |
| Length of intervention sessions | | |
| 15 minutes or less | 3 | 12 |
| 15-30 minutes | 17 | 68 |
| 30-45 minutes | 3 | 12 |

**Research Question Two:  What Instructional Strategies are Utilized by**

**Kindergarten Teachers to Teach Phonemic Awareness and Phonics Skills at Tier 1?**

After examining data about general practices for kindergarten reading instruction

and intervention, including RTI, the next research question sought more specific

information about the use of evidence-based practices.  The following groups of tables

present data targeting the use of instructional strategies to teach phonemic awareness and

phonics skills.  A majority of respondents reported using the following strategies to teach

phonemic awareness often or always:   visual or tactile representations to teach phonemic

awareness (76%);   emphasis on differences in the way sounds are produced (64%);

focus on 1-2 skills (75%).   Strategies that were used less frequently included:  incidental

instruction of phonemic awareness skills (52%) and instruction of all phonemic

awareness skills concurrently (48%).    A chi-square test was utilized to analyze data

about each specific strategy.

For the variable "use of visual/tactile representation of letters, results indicated a

significant difference between teachers' use of this strategy compared with expected use,

$\chi^2$ (2) = 9.100, P =.011 (Table10a).

Table 10a

*Instructional Strategies for Phonemic Awareness*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Use of visual/tactile representations of letters | | | | | |
| Number of Responses | 12.0 | 7.0 | 0.0 | 1.0 | 18.0 |
| % strategy | 48.0 | 28.0 | 0.0 | 4.0 | 100.0% |
| Expected Count | 6.7 | 6.7 | 6.7 | 6.7 | 18.0 |

| Chi-square  = 9.100 | df  = 2 * | p =.011 |
|---|---|---|

*df count reflects that only 3 response choices were selected by participants.

For the strategy "emphasize differences in the way the mouth moves to produce sounds," results indicated no significant difference between teachers' use of this strategy and expected use $\chi^2$ (2) = 2.800, P = .247 (Table 10b).

Table 10b

*Instructional Strategies for Phonemic Awareness*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Emphasize differences in the way mouth moves to produce sounds | | | | | |
| Number of Responses | 6.0 | 10.0 | 4.0 | 0.0 | 20.0 |
| % strategy | 24.0 | 40.0 | 16.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |
| Chi-square = 2.800 | df = 2* | | p = .247 | | |

*df count reflects that only 3 response choices were selected by participants.

Data for the strategy "incidentally teach phonemic awareness" indicated no significant difference between teachers' use of this strategy and expected use, $\chi^2$ (3) =5.556, P= .135 (Table 10c).

Table 10c

*Instructional Strategies for Phonemic Awareness*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Incidentally teach phonemic awareness | | | | | |
| Number of Responses | 8.0 | 5.0 | 4.0 | 1.0 | 18.0 |
| % strategy | 32.0 | 20.0 | 16.0 | 4.0 | 100.0% |
| Exp. Count | 4.5 | 4.5 | 4.5 | 4.5 | 18.0 |
| Chi-square = 5.556 | df = 3 | | p = .135 | | |

Data for the strategy "teach all phonemic awareness skills concurrently" indicated no significant difference between teachers' use of this strategy and expected use, $\chi^2$ (3) = 2.263, P = .520 (Table 10d).

Table 10d

*Instructional Strategies for Phonemic Awareness*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Teach all phonemic awareness skills concurrently | | | | | |
| Number of Responses | 6.0 | 6.0 | 5.0 | 2.0 | 19.0 |
| % strategy | 24.0 | 24.0 | 20.0 | 8.0 | 100.0% |
| Exp. Count | 4.8 | 4.8 | 4.8 | 4.8 | 19.0 |
| Chi-square = 2.263 | df = 3 | | p = .520 | | |

Data for the strategy "focus on 1 or 2 phonemic awareness skills at a time" yielded a significant difference between teachers' use of this strategy and expected use, $\chi^2 (3) = 13.200$, P = .004 (Table 10e).

Table 10e

*Instructional Strategies for Phonemic Awareness*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Focus on 1 or 2 phonemic awareness skills at a time | | | | | |
| Number of Responses | 8.0 | 10.0 | 1.0 | 1.0 | 20.0 |
| % strategy | 32.0 | 40.0 | 4.0 | 4.0 | 100.0% |
| Exp. Count | 5.0 | 5.0 | 5.0 | 5.0 | 20.0 |

Chi-square = 13.200          df = 3          p = .004

The following table presents a summary of all responses provided in the area of strategies for teaching phonemic awareness (Table 11).

Table 11

*Total Percentages of Instructional Strategies for Phonemic Awareness*

| Instructional Strategies | Percent of Responses | | | |
| --- | --- | --- | --- | --- |
| | Always | Often | Sometimes | Never |
| Use of visual/tactile representations of letters | 48 | 28 | 0 | 4 |
| Emphasize differences in the way mouth moves to practice sounds. | 24 | 40 | 16 | 0 |
| Incidentally teach phonemic awareness | | | | |
| Teach all phonemic awareness skills concurrently | 24 | 24 | 20 | 8 |
| Focus on 1 or 2 phonemic awareness skills at a time | 32 | 40 | 4 | 4 |

Chi-square analysis was utilized to compare the reported use of strategies for teaching phonics with the statistically predicted use of the strategies. Data regarding the strategy "teach letter sounds in planned sequence" indicated there was a significant different between teachers' use of the strategy and expected use of the strategy, $\chi^2$ (2) =9.700, P = .008 (Table 12a).

Table 12a

*Instructional Strategies for Phonics*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Teach letter sounds in planned sequence | | | | | |
| Number of Responses | 13.0 | 2.0 | 5.0 | 0.0 | 18.0 |
| % strategy | 52.0 | 8.0 | 20.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 18.0 |

Chi-square = 9.700          df = 2*          p = .008

*df count reflects that only 3 response choices were selected by participants.


Data regarding the strategy "teach letter sounds first in isolation then in context of connected reading indicated there was no significant difference between teachers' use of the strategy and expected use, $\chi^2$ (2) =1.900, P= .387 (Table 12b).


Table 12b

*Instructional Strategies for Phonics*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Teach letter sounds first in isolation then in context of connected reading | | | | | |
| Number of Responses | 9.0 | 4.0 | 7.0 | 0.0 | 20.0 |
| % strategy | 36.0 | 16.0 | 28.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |

Chi-square = 1.900          df = 2*          p = .387

*df count reflects that only 3 response choices were selected by participants.

For the strategy "state phonics objective prior to lesson presentation" data indicated a significant different between teachers' use of the strategy and expected use, $\chi^2$ (2) =10.000, P =.019 (Table 12c).

Table 12c

*Instructional Strategies for Phonics*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| State phonics objective prior to lesson presentation | | | | | |
| Number of Responses | 9.0 | 4.0 | 7.0 | 0.0 | 20.0 |
| % strategy | 36.0 | 16.0 | 28.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |
| Chi-square = 10.000 | df = 2* | | p = .019 | | |

df count reflects that only 3 response choices were selected by participants.

For the strategy "provide texts with decodable words," data indicated a significant difference between teachers' use of the strategy and expected use, $\chi^2$ (2) = 11.789, P = .003 (Table 12d).

Table 12d

*Instructional Strategies for Phonics*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Provide texts with decodable words | | | | | |
| Number of Responses | 13.0 | 5.0 | 1.0 | 0.0 | 19.0 |
| % strategy | 52.0 | 20.0 | 4.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 0 0 | 19.0 |
| Chi-square = 11.789 | | df = 2* | | p = .003 | |

*df count reflects that only 3 response choices were selected by participants.

Data regarding the strategy "initially teach letter sounds within embedded contexts of stories," there was no significant difference between teachers' use and expected use, $\chi^2$ (3) = 5.211 ,P = .157  (Table 12e).

Table 12e

*Instructional Strategies for Phonics*

| Strategy | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Initially teach letter sounds within embedded contexts of stories | | | | | |
| Number of Responses | 7.0 | 4.0 | 7.0 | 1.0 | 19.0 |
| % strategy | 28.0 | 16.0 | 28.0 | 4.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |
| Chi-square  = 5.211 | | df = 3 | | p  = .157 | |

Data regarding the strategy "teach letter sounds in a random sequence," data indicated there was no significant difference between teachers' use of the strategy and expected use, $\chi^2$ (3) = 4.222, P = .238 (Table 12f).

Table 12f

*Instructional Strategies for Phonics*

| Strategy | Alway | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Teach letter sounds in random sequence | | | | | |
| Number of Responses | 4.0 | 2.0 | 4.0 | 8.0 | 18.0 |
| % strategy | 16.0 | 8.0 | 16.0 | 32.0 | 100.0% |
| Exp. Count | 4.5 | 4.5 | 4.5 | 4.5 | 18.0 |
| Chi-square = 4.222 | | df = 3 | | p = .238 | |

Table 13 presents a summary of responses for instructional strategies for phonics.

Table 13

*Total Percentages for Instructional Strategies for Phonics*

| Instructional Arrangements | Percent of Responses | | | |
|---|---|---|---|---|
| | Always | Often | Sometimes | Never |
| Teach letter sounds in a planned sequence | 52 | 8 | 20 | 0 |
| Teach letter sounds first in isolation then in context of connected reading | 36 | 16 | 28 | 0 |
| State phonics objective prior to lesson presentation | 44 | 16 | 12 | 8 |
| Provide texts with decodable words | 52 | 20 | 4 | 0 |
| Initially teach letter sounds within embedded contexts of stories | 28 | 16 | 28 | 0 |
| Teach letter sounds in a random sequence | 16 | 8 | 16 | 32 |

**Research Question Three: What Instructional Arrangements are Utilized by**

**Kindergarten Teachers to Teach Phonemic Awareness and Phonics Skills at Tier 1?**

The third research question examined types of instructional arrangements utilized for phonemic awareness and phonics instruction. Data about instructional arrangements for teaching phonemic awareness and phonics was analyzed using chi-square tests. In the area of instructional arrangements for phonemic awareness, data indicated a significant difference between teachers' use of direct instruction and expected use of that arrangement, $\chi^2$ (2) = 9.579, P =.008 (Table14a).

Table 14a

*Instructional Arrangements for Phonemic Awareness*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Direct Instruction | | | | | |
|    Number of Responses | 12.0 | 6.0 | 1.0 | 0.0 | 19.0 |
|    % strategy | 52.0 | 20.0 | 8.0 | 0.0 | 100.0% |
|    Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |
| Chi-square = 9.579 | | df = 2* | | p = .008 | |

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of center activities and expected use of that arrangement, $\chi^2$ (2) = 2.947, P = .229 (Table 14b).

Table 14b

*Instructional Arrangements for Phonemic Awareness*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Center activities | | | | | |
| Number of Responses | 7.0 | 9.0 | 3.0 | 0.0 | 19.0 |
| % strategy | 32.0 | 36.0 | 12.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |

| Chi-square  = 2.947 | df  = 2* | p = .229 |
|---|---|---|

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of cooperative learning and expected use of that arrangement, $\chi^2$ (2) = 2.947, P = .229 (Table 14c).

Table 14c

*Instructional Arrangements for Phonemic Awareness*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Cooperative learning | | | | | |
| Number of Reponses | 7.0 | 9.0 | 3.0 | 0.0 | 19.0 |
| % strategy | 28.0 | 36.0 | 12.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |

| Chi-square  = 2.947 | df  = 2* | p = .229 |
|---|---|---|

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of guided reading groups and expected use of that arrangement, $\chi^2$ (2) = 2.947, P =.229 (Table 14d).

Table 14d

*Instructional Arrangements for Phonemic Awareness*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Guide reading groups | | | | | |
| Number of Responses | 9.0 | 7.0 | 3.0 | 0.0 | 19.0 |
| % strategy | 36.0 | 28.0 | 12.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |

| Chi-square = 2.947 | df = 2* | p = .229 |
|---|---|---|

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of individual seat work and expected use of that arrangement, $\chi^2$ (2) = .737, P = .629 (Table 14e).

Table 14e

*Instructional Arrangements for Phonemic Awareness*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Individual seat work | | | | | |
| Number of Respon | 5.0 | 6.0 | 8.0 | 0.0 | 19.0 |
| % strategy | 20.0 | 24.0 | 32.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |

| Chi-square = .737 | df = 2* | p = .692 |
|---|---|---|

* df count reflects that only 3 response choices were selected by participants.

Table 15 reflects a summary of all responses received in the area of instructional arrangements for phonemic awareness.

Table 15

*Total Percentages for Instructional Arrangements for Phonemic Awareness*

| Arrangements | Percent of Responses | | | |
| --- | --- | --- | --- | --- |
| | Always | Often | Sometimes | Never |
| Direct Instruction | 52 | 20 | 8 | 0 |
| Center Activities | 32 | 36 | 12 | 0 |
| Cooperative Learning | 28 | 32 | 16 | 0 |
| Guided Reading Groups | 40 | 28 | 12 | 0 |
| Individual Seat Work | 28 | 24 | 28 | 0 |

Chi-square analysis regarding instructional arrangements for phonics revealed similar results. Data indicated a significant difference between teachers' use of direct instruction and expected use of that arrangement, $\chi^2 (2) = 9.700$, P = .008 (Table 16a).

Table 16a

*Instructional Arrangements for Phonics*

| Arrangement | Always | Often | Sometimes | Never | Total |
| --- | --- | --- | --- | --- | --- |
| Direct instruction | | | | | |
| Number of Response | 13.0 | 5.0 | 2.0 | 0.0 | 20.0 |
| % strategy | 52.0 | 20.0 | 8.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |
| Chi-square  = 9.700 | | df  = 2* | | p = .008 | |

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of center activities

and expected use of that arrangement, $\chi^2$ (2) = 3.100, P =.212 (Table 16b).

Table 16b

*Instructional Arrangements for Phonics*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Center activities | | | | | |
| Number of Responses | 8.0 | 9.0 | 3.0 | 0.0 | 20.0 |
| % strategy | 32.0 | 36.0 | 12.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |
| Chi-square = 3.100 | | df = 2* | | p = .212 | |

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of cooperative

learning and expected use of that arrangement, $\chi^2$ (2) = 1.368, P = .157 (Table 16c).

Table 16c

*Instructional Arrangements for Phonics*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Cooperative learning | | | | | |
| Number of Respons | 7.7 | 8.0 | 4.0 | 0.0 | 19.0 |
| % strategy | 28.0 | 32.0 | 16.0 | 0.0 | 100.0% |
| Exp. Count | 6.3 | 6.3 | 6.3 | 6.3 | 19.0 |
| Chi-square = 1.368 | | df = 2* | | p = .504 | |

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of guided reading groups and expected use of that arrangement, $\chi^2$ (2) = 3.700, P = .157 (Table 16d).

Table 16d

*Instructional Arrangements for Phonics*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Guided reading | | | | | |
| Number of Responses | 10.0 | 7.0 | 3.0 | 0.0 | 20.0 |
| % strategies | 40.0 | 28.0 | 12.0 | 0.0 | 100.0% |
| Exp. Count | 6.7 | 6.7 | 6.7 | 6.7 | 19.0 |
| Chi-square = 3.700 | | df = 2* | | p = .157 | |

*df count reflects that only 3 response choices were selected by participants.

Data indicated no significant difference between teachers' use of individual seatwork and expected use of that arrangement, $\chi$ (2) = .100, P =. 951 (Table 16e).

Table 16e

*Instructional Arrangements for Phonics*

| Arrangement | Always | Often | Sometimes | Never | Total |
|---|---|---|---|---|---|
| Individual seat work | | | | | |
| Number of responses | 7.0 | 6.0 | 7.0 | 0.0 | 20.0 |
| % strategy | 28.0 | 24.0 | 28.0 | 0.0 | 100.0% |
| Exp. Coun | 6.7 | 6.7 | 6.7 | 6.7 | 20.0 |
| Chi-square = .100 | | df = 2* | | p = .951 | |

*df count reflects that only 3 response choices were selected by participants.

Table 17 presents a summary of responses in the area of instructional arrangements for phonics.

Table17

*Total Percentages for Instructional Arrangement for Phonics*

| Instructional Arrangements | Percent of Responses | | | | |
|---|---|---|---|---|---|
| | Always | Often | Sometimes | Never | Other |
| Direct Instruction | 52 | 20 | 8 | 0 | 20 |
| Center Activities | 32 | 36 | 12 | 0 | 20 |
| Cooperative Learning | 28 | 32 | 16 | 0 | 24 |
| Guided Reading Groups | 40 | 28 | 12 | 0 | 20 |
| Individual Seat Work | 28 | 24 | 28 | 0 | 20 |

**Research Question Four: What Types of Programs are Utilized by Kindergarten Teachers to Implement Tier 2 Interventions in the Area of Phonemic Awareness and Phonics?**

The previous two research questions examined instructional practices used for general, core classroom instruction of two critical early literacy skills, phonemic awareness and phonics. The final research question examined types of reading interventions that are utilized when the first level of general instruction did not produce sufficient reading progress for kindergarten students at-risk for reading difficulties. The responses to questions about targeted, differentiated interventions provided both quantitative and qualitative data.

82

Responses to an overview about use of interventions indicated that 84% of the participants provide targeted, focused interventions for kindergarten students who were struggling to master reading objectives (Table18). The majority of teachers (72%) reported that they develop targeted, focused, or Tier 2, interventions based on individual student deficits rather than providing similar interventions for every student needing interventions.

Table 18

*Use of Targeted, Focused Interventions and How They Are Designed*

|  | Number of Respondents | Percent |
|---|---|---|
| Teachers Providing Targeted, Focused Interventions | 21 | 84 |
| Teachers Not Providing Targeted, Focused Interventions | 2 | 8 |
| No Response | 2 | 8 |
|  |  |  |
| Interventions Provided Designed for Specific Deficits | 18 | 72 |
| Interventions Similar for Each Student | 4 | 16 |
| Other (Non-Specified) | 1 | 4 |
| No Response | 2 | 8 |

Table 19 reports teachers' rating of their campus's effectiveness in providing targeted, focused, or Tier 2, interventions. Forty percent of teacher participants indicated that their campus is highly effective in providing interventions.

Table 19

*Ratings of Campus's Effectiveness in Provision of Targeted, Focused Interventions*

|                       | Number of Respondents | Percent |
|-----------------------|-----------------------|---------|
| Highly Effective      | 10                    | 40      |
| Moderately Effective  | 5                     | 20      |
| Somewhat Effective    | 4                     | 16      |
| Minimally Effective   | 1                     | 4       |

When reporting types of interventions, computer programs were the most frequently used, followed by commercial programs and district-developed programs. Tables 20 and 21 include information about phonemic awareness and phonics interventions used at the kindergarten level.

Table 20

*Interventions for Phonemic Awareness Deficits*

| Phonemic Awareness Interventions | Number of Respondents | Percent |
|----------------------------------|-----------------------|---------|
| Computer-based programs          | 11                    | 44      |
| Commercial program               | 8                     | 32      |
| District-developed program       | 7                     | 28      |
| Accelerated Reading Instruction  | 4                     | 16      |
| Eclectic Program                 | 3                     | 12      |
| Plan Recommended by 504 Committee | 3                    | 12      |

Table 21

*Interventions for Phonics Deficits*

| Phonics Interventions | Number of Respondents | Percent |
|---|---|---|
| Computer-based programs | 12 | 48 |
| Commercial program | 11 | 44 |
| District-developed program | 7 | 28 |
| Accelerated Reading Instruction | 4 | 16 |
| Plan Recommended by 504 Committee | | |
| Teacher-selected and/or Created Activities | 3 | 12 |

Participants provided information about specific types of targeted, focused interventions via anecdotal reports, which were analyzed through the use of themes (Table 22). The most frequently reported themes were types of computer programs, tutorials, commercial programs and strategies.

Table 22

*Themes for Tier 2 Interventions*

| Research Question | Theme |
|---|---|
| What types of targeted, focused (Tier 2) interventions are used for kindergarten students struggling to master reading objectives? | 1. Computer programs<br>2. Tutorials<br>3. Commercial programs |

Out of 20 kindergarten teachers' responses, eight respondents reported data about theme one, computer programs. Computer programs that were listed include: *Starfall, Reading A-Z, Istation, Student Success Maker,* and *Waterford Computer Lab*, which is described as "a self-paced computer program that teachers students letters, letter sounds, sight words, recognizing chunks in words, vocabulary, comprehension and other early reading skills."

Data about theme two, tutorials, was reported by seven respondents. Tutorials were provided at various times during the day, including before/after school, recess, classroom computer time and during class, although it was not specified whether the tutorials were supplemental to regular reading instructional time. The background and experience of individuals providing tutorials varied, and included paraprofessionals, trained parent volunteers, English as a Second Language teacher and the classroom teacher. Five study participants indicated that students at-risk received pull-out services from a reading specialist; one participant noted that kindergarten students receive 20 minute sessions daily with a reading specialist. Tutoring was provided in small group or individual settings.

Information about theme three, commercial programs, indicated the use of the following programs: leveled readers (such as guided reading), *Lexia Reading* and materials from *Texas Primary Reading Inventory*.

Regarding theme four, strategies that teachers reported include: hands on drill and practice and learning stations. One respondent reported using Extended Learning

Time, which included "30 minutes of intense instruction during the literacy center blocks, in addition to literacy center activities and regular reading groups."   According to one survey participant, "most kindergarteners do not make it to Tier 2."

One survey item examined interventions other than RTI.   Analysis of responses from this item yielded themes in the areas of tutorials, other service and programs. Tutoring was provided by peer tutors, fifth grade tutors and high school tutors, as well as classroom teachers.   Other services that have been provided in addition to tutorials included:   pull-out services from reading specialists, special education and dyslexia services.   However, it was reported that students are not usually considered for dyslexia services until first grade or later due to "developmental issues."  Programs that were utilized include the *Texas Treasures Language Arts curriculum, Saxon Phonics* and Florida Center for Reading Research materials.   One kindergarten teacher reported that the *Reading Recovery* model was used for all students having difficulty learning to read, and all kindergarten teachers have received specialized training in the *Reading Recovery* method.

One anecdotal report indicated that each kindergarten teacher provided differentiated instruction in specific deficit areas.   For example, one teacher worked with students who had difficulty rhyming, while other students in her class received interventions in other key reading components, such as phonics, fluency, vocabulary or comprehension, from teachers on the kindergarten team.

Participants were asked to rate their level of effectiveness providing targeted, focused interventions for kindergarten students in the area of reading.  The majority of teachers indicated that they were highly effective (40%) or moderately effectively (20%) in providing such interventions.

Additional input was collected about supports for students who continue to have reading difficulties after RTI Tier 1 and Tier 2 services.  Two options that were examined included referral of students to a campus-wide Student Support Team (SST) and referral for special education evaluation with possible services under the umbrella of special education.  At the kindergarten level, school guidelines varied as to whether special education referrals were an alternative.  Table 22 reports the data about possible options that may be considered for children with reading deficits, including the frequency of referrals for both SST and special education evaluation.  The maximum number of referrals to the SST team was seven students, while one teacher indicated she had no students referred to the SST.  The survey yielded much lower numbers of students referred for special education evaluation, with the majority of teachers initiating zero to one special education referrals.

Table 23

*Referrals for Additional Supports with Kindergarten Students*

| Referrals for Special Education Assessment | Number of Respondents | Percent |
|---|---|---|
| Yes, An Option for Kindergarteners | 10 | 40 |
| Not an Option for Kindergarteners | 7 | 28 |
| Interventions not Needed for Kindergarteners to Catch Up | 3 | 12 |

| Kindergarten Referrals for Special Education Assessment in past Two Years | Number of Respondents | Percent |
|---|---|---|
| No Referrals | 9 | 36 |
| One Referral | 8 | 32 |
| Two Referrals | 3 | 12 |

| Referrals to Student Support Team | Number of Respondents | Percent |
|---|---|---|
| No Referrals | 1 | 4 |
| One to Two Referrals | 5 | 20 |
| Three to Four Referrals | 5 | 20 |
| Five to Seven Referrals | 7 | 28 |

The survey also examined teachers' use of retention.  The frequency of students retained in kindergarten is included in Table 23.  The majority of teachers (52%) retained no students.

Table 24

*Kindergarten Retention for Students with Reading Difficulties*

|                                      | Number of Respondents | Percent |
| ------------------------------------ | --------------------- | ------- |
| No Kindergarten students retained    | 13                    | 52      |
| One student retained                 | 6                     | 24      |
| Two students retained                | 3                     | 12      |

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Additional survey items examined plans for students with reading difficulties upon entering first grade. A majority of teachers reported that the RTI model was used. Out of 20 respondents, 13 reported that RTI would be used at first grade to address reading deficits. Other types of programs, utilized for first graders, included *Reading Recovery*, dyslexia services, and special education. One teacher reported that a transitional kindergarten class was utilized for the students who were struggling, while another teacher reported utilization of summer school. Reading programs that were used in first grade included: guided reading, *Read Naturally* and *College Readiness Lab*.

A general question about RTI sought information about whether the RTI process had assisted teachers in providing targeted, focused interventions for kindergarten students struggling to master reading objectives. Fourteen teachers reported that RTI had been helpful in meeting the needs of this group of students while one teacher reported RTI had not been helpful. A significant number of respondents (20%) indicated they were undecided about the topic, and another 20% of respondents did not complete the question. Results of this survey are presented in Table 24.

Table 25

*Teachers' Perspective Regarding Assistance Provided by RTI*

|  | Number of Respondents | Percent |
| --- | --- | --- |
| Yes, RTI has assisted you in providing differentiated instruction | 14 | 56 |
| No, RTI has not assisted me in providing differentiated instruction | 1 | 4 |
| Undecided | 5 | 20 |

Kindergarten teachers were also asked to describe other types of tiered instructional programs that are used. One report indicated that *Dynamic Indicators of Early Literacy Skills* and *Educational Software for Guiding Instruction* were instruments used to screen kindergarteners and "students who score in the intensive and strategic range (on this measure) are then progress monitored every 2-3 weeks."

A qualitative survey item asked participants to provide additional feedback about the RTI program at their campus. The campus reading specialist tracked progress and conferenced with teachers to discuss progress and specific weaknesses of students. Another teacher indicated that "at the first of the year we are mainly observing students, and making sure they are getting all the exposure to reading that they can. " After the second six weeks, or one-third of the kindergarten year, students who were not progressing were referred to RTI teachers, who provided in-class and pull-out interventions. One teacher reported that she used RTI primarily for students with

behavior issues; however, she noted that "RTI would be extremely beneficial for students with difficulty reading."

Two teachers reported similar practices for RTI at kindergarten. According to one respondent, teachers were discouraged from referring kindergarten students to RTI, but, because of her experience, she reported that she consistently takes her students to RTI. However "most of the team is intimidated by the process." Another teacher reported that her kindergarten team was "relatively unfamiliar" with the RTI process and "don't recognize a responsibility to address it." This teacher also reported that kindergarten teachers at her school remediate students who are at-risk for reading failure but do not refer to the interventions as RTI. The time consuming nature of data collection and progress monitoring were noted by one teacher to be a weakness of the RTI process.

At the conclusion of the survey, teachers were asked to share their perspectives about teaching reading at kindergarten. One teacher reported concern about demands placed on five and six year olds and lack of adequate readiness skills. This teacher attributed the lack of readiness to less active play or parents taking less active roles in preparing children for kindergarten. She noted that she spent time working on increasing readiness skills, such as gross motor skills and felt like kindergarten needs to address socialization skills, rather than emphasizing academics. This teacher reported that "the push for academics is doing a disservice to our children." Another teacher reported similar concerns about children who begin school lacking basic readiness skills.

A contrasting perspective was reported by a teacher who indicated that "reading should be the most important thing we do in kindergarten right behind teaching a child to socialize."  In this teacher's opinion, match, science and social studies could be taught through integrated literacy instruction.

One teacher with experience in private, inner-city, rural and suburban schools reported having "amazing success with guided reading," in part because she developed  a greater understanding of an individual student's needs in the small group setting.  The need for smaller class sizes for teaching reading at kindergarten was discussed by one teacher.

 One teacher reported that RTI had assisted her in documentation of progress; however, she indicated that RTI had not assisted in the provision of interventions, as she had to develop her own interventions.

## Summary

The first research question examined general RTI practices and found that all participants implemented tiered instructional programs, such as RTI, although teachers reported some variability about who provided interventions, frequency and length of interventions.   While 22 out of 25 respondents indicated that interventions were provided by the classroom teacher, a significant number indicated that interventions were provided by a reading specialist.   All teachers received professional development about differentiation of instruction and RTI, although the amount of training teachers received was varied as well as their comfort level with the RTI process.   The majority of

93

respondents utilized the *Developmental Reading Assessment*, guided reading level and number of letters/sounds mastered to collect data and monitor progress.

The second research question examined the participants' use of evidence-based instructional strategies in the areas of phonemic awareness and phonics. Teachers reported frequent use of evidence-based strategies. Chi-square analysis indicated there was a significant difference between the statistically expected number of participants using some strategies as compared with the actual number. The following phonemic awareness strategies were utilized more frequently than expected: use of visual/tactile representations of letters; focus on 1 or 2 phonemic awareness skills at a time. The following phonics strategies were utilized more frequently than expected: teach letter sounds in planned sequence; state phonics object prior to lesson presentation; provide texts with decodable words.

The third research question examined the participants' use of evidence-based instructional arrangements in the areas of phonemic awareness and phonics. Results yielded a similar pattern as found in the area of instructional strategies. Chi-square analysis indicated that there was a significant difference between the statistically expected number of participants who reported use of direct instruction as compared with the actual number of participants who reported use of direct instruction. In both the areas of phonemic awareness and phonics, a larger number of teachers' used direct instruction than the number expected to use direct instruction.

The fourth research question examined reading interventions that were used for students who were struggling with reading. The most frequently used interventions were computer-based and commercial programs, followed by the use of district-developed programs. Additional qualitative data was reported about use of the RTI framework for kindergarten students.

## Limitations

Limitations to applicability and generalizability of this study include the low number of participants. Other limitations include the fact that all participants were located in the North Texas area; other areas in the state may have slightly different staff development opportunities and expectations about evidence-based practices than are standard in North Texas.

Because this study was narrowly focused on instruction and intervention for kindergarten students, information gained from this study may not pertain to teachers of older elementary and secondary students. While surveys were sent to more than 25 randomly selected school districts, it is possible that the small number of surveys which were returned were not representative samples of all sampled districts. For example, several teachers from one or two districts may have returned surveys, which resulted in a smaller number of schools and districts participating in the study. Finally, the study was limited by the degree of reliability and validity of the survey instrument.

CHAPTER V

DISCUSSION

The purpose of this study was to examine the current reading instructional

practices of kindergarten teachers. Through completion of a survey, kindergarten

teachers provided data on RTI practices, instructional strategies, arrangements and

programs. Because of consensus that phonemic awareness and phonics instruction are

two crucial early developing literacy skills which require specifically targeted instruction

(Foster et al., 2007; NICHD, 2000; Torgesen, 2004), the survey investigated

instructional and intervention practices specifically focused on phonemic awareness and

phonics. The four research questions guiding the study were presented, as well as major

findings from the data.

A survey instrument was developed to examine the four research questions about

kindergarten reading instruction and interventions in addition to the RTI process. A pilot

study was conducted to assess the need for revisions to the survey. A convenience

sample was obtained, and the survey was clarified and modified based on feedback.

**Findings**

**Research Question One**

What general RTI practices are currently being utilized by kindergarten teachers?

All 25 survey participants reported using tiered instructional programs, such as RTI.

Regarding professional development about RTI, eight percent of teachers reported

receiving limited professional development on RTI and 76% of teachers received a minimum of two hours professional development.  Eighty-four percent of teachers reported an average to high level of understanding about RTI.

 Data focused on reading intervention implementation in the kindergarten year indicated seventy-two percent of teachers began interventions early in the school year, which is a significant research-based recommendation.  The Executive Summary of the National Research Center on Learning Disabilities (2003), as well as a report from the Department of Education (2002), emphasized the essential nature of "early identification and swift intervention" (p. 9).

Teachers responding to the survey reported using several types of data for progress monitoring; however, the most frequently reported data sources were Developmental Reading Assessment (84%), number of letters/sounds mastered (72%) and guided reading levels (68%).  As indicated by The President's Commission on Special Education (2002), data collection and progress monitoring are essential for the RTI process.   The data sources noted in the table above were utilized to determine when a student was not making sufficient progress mastering grade level objectives, thus requiring more direct and intense instruction and interventions.

The survey examined practices about who provides interventions.  Twenty-two out of 25 respondents reported that classroom teachers provided targeted, focused interventions, although thirteen of the teachers reported that reading specialists provide interventions at their school.

Regarding the frequency of interventions, one teacher reported providing interventions as frequently as two to three times per day. Sixteen percent of teachers indicated that interventions were provided twice per week, while 36% of teachers provided daily interventions. Research reported by Torgesen (2004) and Gersten et al. (2009) indicated that daily interventions produced significant results.

The length of intervention sessions was also examined. Sixty-eight percent of participants reported that their intervention sessions are 15-30 minutes in length. Three teachers reported using interventions lasting 15 minutes or less, while 12% of teachers reported using interventions 30-45 minutes in length. The length of intervention sessions most commonly reported, which was 15-30 minutes, met evidence-based guidelines suggested by Torgesen (2004) and Gersten et al., (2009).

Additional survey items collected data about other practices that were part of the RTI process, such as referrals for multidisciplinary team support (Student Support Team) or referrals for special education assessment. Survey respondents indicated that they referred students to the Student Support Team, with a range from zero to seven referrals. Gersten et al. (2009) recommended that students making insufficient progress with Tier 2 interventions had intervention plans developed by a school-wide team.

In the area of special education referrals, seven teachers reported that special education assessment was not an option for kindergarten students, while 10 teachers reported that referrals for special education assessment were an option at their campus. Nine teachers reported making no referrals for special education evaluation in the past

two years, while 11 teachers reported making one or two referrals.  Gersten et al. (2009) recommended that students who continued to have difficulty with reading skills after intense interventions may need to be evaluated for special education services.

Twelve percent of the survey participants reported that, in their opinion, kindergarten students would become successful readers as they matured without the need for interventions.  However, Francis et al. (1996) examined the long-term course of early reading delays and found that most students with early delays did not close the gap, but continued to demonstrate significant reading difficulties.

For students who have been through the RTI process and continued to demonstrate reading deficits, retention of students in kindergarten may be considered as an option for students with reading deficits.  While 52% of participants reported that no students from their class have been retained within the past two years, 24% teachers reported retaining one or two students.   The survey also examined possible plans for students who advance to first grade without mastering kindergarten objectives.  Fifty-two participants reported that children who were identified at kindergarten as at-risk would continue to receive RTI in first grade.  Other types of programs that were used include transitional kindergarten or summer school.

Further aspects of RTI that were studied include teachers' perspectives about whether RTI had assisted them in providing differentiated instruction.  Fifty-six percent of teachers reported that RTI had improved their ability to differentiate instruction, while one teacher reported RTI has not been of assistance.  Factors that teachers reported which

interfered with their ability to provide effective differentiated instruction included large class sizes, minimal support in designing Tier 2 interventions, time demands of data collection and students' lack of readiness skills to enter kindergarten.

Survey participants were given the option to provide additional input about RTI at their campus. One teacher reported that her campus used RTI for behavior issues, but she felt RTI would be helpful for students with reading difficulties. Another teacher indicated that less experienced teachers on her team were intimidated by the RTI process and did not proceed with RTI for their students. A third teacher reported that kindergarten teachers at her campus were "relatively unfamiliar" with the RTI process and indicated that those kindergarten teachers with whom she works "do not recognize a responsibility to address it."

**Research Question Two**

What instructional strategies are utilized by kindergarten teachers to teach phonemic awareness skills and phonics skills at Tier 1? The survey items identified the frequency with which teachers used five different strategies for instruction of phonemic awareness and phonics.

In the area of phonemic awareness, the five strategies that were surveyed were: 1) use of visual/tactile representations of letters; 2) emphasize differences in the way the mouth moves to produce sounds; 3) incidentally teach phonemic awareness; 4) teach all phonemic awareness skills concurrently; and 5) focus on 1 or 2 phonemic awareness skills at a time. Based on the chi-square analysis, there was a statistically significant

difference between the expected number of responses and the actual higher number of responses for two strategies: 1) use of visual/tactile representations of letters; and 2) focus on 1 or 2 phonemic awareness skills at time. Respondents expressed a stronger than anticipated preference for these two strategies. These strategies are evidence-based for improving phonemic awareness skills.

Strategies for phonics instruction that were surveyed include: 1) teach letter sounds in a planned sequence; 2) teach letter sounds first in isolation then in context of connected reading; 3) state phonics objective prior to lesson presentation; 4) provide texts with decodable words; and 5) teach letter sounds in a random sequence. Chi-square analysis revealed a statistically significant difference between the expected number of responses and the actual number of responses for two strategies: 1) *teach letter sounds in planned sequence; 2)* and *provide texts with decodable words.* Researchers have determined that it is important for phonemic awareness and phonics to be introduced systematically in isolation before integrating them with other skills (Baker et al., 2010; Connor et al., 2006; Torgesen, 2004). Teachers reported that they taught letter sounds in a planned sequence and introduced new skills gradually.

**Research Question Three**

What instructional arrangements (settings) are utilized by kindergarten teachers to teach phonemic awareness and phonics skills at Tier 1? This survey question examined types of instructional arrangements, such as settings, that are used for teaching phonemic awareness and phonics. Data was collected about the following five phonemic

101

awareness and phonics instructional arrangements: 1) direct instruction; 2) center activities; 3) cooperative learning; 4) guided reading groups; and 5) individual seat work.

While the survey did not identify whether direct instruction was delivered in small or large group settings, 72% of teachers reported that they often or always use direct instruction to teach phonemic awareness and phonics skills. Teachers' frequent report of direct instruction was reflected in chi-square analysis. A significant difference was observed in the participants' use of direct instruction and expected use of direct instruction in both the areas of phonemic awareness and phonics. A consensus of evidence demonstrated the efficacy of direct instruction (Snow et al., 1998; NICHD, 2000). While direct instruction was recommended for all students, direct instruction was a foundational element of instruction for students at-risk for reading difficulties. Gersten et al. (2009) recommended that teacher-directed instruction was critical for students at-risk to optimize their progress. Connor et al. (2004) and Connor et al. (2006) reported greater improvements in alphabetic and letter-word recognition growth when teacher-managed activities were used.

The use of the instructional setting, guided reading groups, was examined. Sixty-eight percent of teachers often or always used guided reading groups. Foorman and Torgesen (2001) reported that guided reading was an instructional approach that required teachers to create their own systematic phonics curriculum, which did not always meet the need for higher systematic instruction.

Other instructional arrangements (settings) that were investigated included: center activities, cooperative learning and individual seat work.  Sixty-eight percent of teachers often or always used center activities for phonemic awareness and phonics instruction, while 60% of teachers reported using cooperative learning activities often or always.  Individual seat work was used often or always 52% of the time as an instructional arrangement.  Gersten et al., (2009) reported that individual work was more effective for students after their specific weaknesses improve.

**Research Question Four**

What types of programs are utilized by kindergarten teachers to implement Tier 2 interventions in the area of phonemic awareness and phonics?  The fourth question examined practices for provision of interventions, which are targeted and focused, or Tier 2.   All 25 participants used targeted, focused interventions for students who were struggling to master reading objectives.   When queried about how interventions were designed, seventy-two percent of the participants indicated that interventions were tailored to specific student needs, while sixteen percent reported using similar interventions for each student.   Evidence-based practices recommended that effective interventions be differentiated based on individual students' deficits (Connor, Morrison, Fishman, Schatschneider & Underwood, 2007; Torgesen, 2004).

Data collection for the questions in this section was obtained through quantitative, multiple choice and Likert-scale items, in addition to anecdotal reports from the participants about kindergarten reading interventions.   The most frequently reported

intervention programs for Tier 2 were computer-based and commercial programs. Other

programs which were reported include: district-designed programs, teacher-designed and

selected programs and Accelerated Reading Instruction.

Eleven percent of teachers used computer-programs for often or always to provide

interventions in the area of phonemic awareness, while 12% of teachers often or always

used computer-programs for phonics interventions. Teachers reported using the

computer programs *Istation, Reading A-Z, Starfall,* and *Student Success Maker*.

Commercial programs that were used include: leveled or guided reading, *Lexia Reading*

and materials from Texas Primary Reading Index. One teacher indicated that she was

more effective in differentiating instruction because of the guided reading approach. She

reported that she has taught in four different types of schools and she "can't imagine

teaching reading any other way." She reported that guided reading was successful

because it addressed the individual student's needs by providing frequent small group

instruction. Gersten et al. (2009) reported that small group instruction is most effective

for students who need intense instruction.

In addition to computer and commercial programs for Tier 2, seven teachers

reported the use of tutorials. Other interventions that were reported include the use of

dyslexia services, although one teacher noted that the dyslexia program was usually not

considered until first grade or later due to "developmental issues." Another teacher

reported that all kindergarten teachers at her school were trained in Reading Recovery

methods, which assisted them in providing targeted, focused interventions. At one

school, a kindergarten team differentiated interventions by designating that each teacher provided interventions in specific deficit areas to students on the team with those weaknesses. When teachers were asked to rate their level of effectiveness in providing targeted, focused (Tier 2) interventions, 60% of the participants reported moderate to high effectiveness.

Additional information was examined about general reading practices for kindergarten students. Teachers reported about training they had received to assist them in differentiating instruction in reading. Sixty-four percent of teachers indicated they received training about differentiated instruction, while 32% indicated they had been somewhat trained for differential instruction or needed additional training.

At the conclusion of the survey, teachers provided general feedback about teaching reading at the kindergarten level. Several teachers provided descriptive and informative perspectives. One teacher shared her perspective about the importance of reading instruction for kindergarteners, while other teachers expressed frustration about class sizes and limited support in developing interventions for students with reading deficits. One teacher expressed concern about the lack of readiness skills kindergarten students often demonstrate.

In conclusion, results from this study indicated that evidence-based practices were being implemented to assist in early identification of kindergarten students at-risk for reading difficulties. Additionally, evidence-based practices were utilized to ensure that all students received differentiated instruction at the level of core classroom, or Tier 1,

instruction and more highly targeted, focused, Tier 2 interventions.  Teachers indicated

that they used evidence-based strategies and arrangements.   Teachers also reported the

use of a variety of programs and supports to provide interventions for students needing

supplemental assistance.

Generally, results of this survey indicated that teachers reported average to high

understanding of RTI and that RTI assisted them in providing differentiated instruction

for kindergarten reading.   RTI provides new opportunities for general and special

educators to coordinate reading practices, especially for students at-risk for reading

difficulties, and  general and special educators are encouraged to work together in a

unified system of "supported education" (Turnbull, 2009, p. 7)  that reduces the separate

systems of general and special education.

**Implications for Future Research**

Based on this study, evidence-based practices are currently being implemented for

reading instruction at the kindergarten level.   Future studies should examine supports

needed by teachers to more effectively implement RTI.  The following are questions to

be considered for further study:

    1.   What specific obstacles impact effective RTI implementation?

     2.  What practices are being developed to improve teachers' ability to further

         differentiate instruction?

     3.  How can the campus-wide support team provide more definitive assistance

         for implementation of Tier 2 interventions?

4. What processes would facilitate implementation of RTI at the preschool level o address the need for children to enter school with adequate prerequisite skills?

5. What is the effectiveness of computer-based programs for providing Tier 2 interventions?

These recommended studies can examine innovative practices that are currently being implemented by teachers to address these issues as well as examine solutions tested in school contexts.   As research continues to delineate ways to improve RTI, it is recommended that studies examine ways to enhance the learning for all students.

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APPENDIX A

IRB APPROVAL LETTER

June 30, 2011

Ms. Rebecca A. Molidor
7939 Meadowbrook
Frisco, TX  75034

Dear Ms. Molidor:

Re:    *An Investigation of Kindergarten Teachers' Reports of Reading Practices (Protocol #: 16474)*

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and appears to meet our requirements for the protection of individuals' rights.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency.  A copy of the approved consent form with the IRB approval stamp and a copy of the annual/final report are enclosed. Please use the consent form with the most recent approval date stamp when obtaining consent from your participants. The signed consent forms and final report must be filed with the Institutional Review Board at the completion of the study.

This approval is valid one year from June 30, 2011.  Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,

Dr. Kathy DeOrnellas, Chair
Institutional Review Board - Denton

enc.

cc.  Dr. Jane Pemberton, Department of Teacher Education
Graduate School

APPENDIX B

RECRUITMENT EMAIL

You are being asked to participate in a research study for Rebecca Molidor's dissertation at Texas Woman's University.  The purpose of this research is to examine current practices utilized by kindergarten teachers to teach reading.  The study will investigate core classroom (Tier 1) instructional strategies and instructional arrangements used to teach both phonemic awareness and phonics.  Utilization of targeted, focused interventions (Tier 2) will also be studied.  The survey questions target your experience providing kindergarten reading instruction and intervention.  I am seeking respondents from the teaching staff at the kindergarten level.  **<u>Participation is completely voluntary and anonymous.</u>**  There is a potential risk of loss of confidentiality in all email, downloading and internet transactions.  I appreciate your participation.  **The following URL will link you to my survey.**

 **<u>https://www.psychdata.com/s.asp?SID=136666</u>**

**Please email <u>rmolidor@mail.twu.edu</u> to request results of the survey.**

**THANKS for your help!**

**Rebecca Molidor**

**TWU Doctoral Student**

APPENDIX C

SURVEY

# An Investigation of Kindergarten Teachers' Reports of Reading Practices

I understand that the return of my completed survey questionnaire constitutes my informed consent to act as a participant in this research.

The purpose of this survey is to learn about current instructional materials, strategies, instructional arrangements and interventions utilized for kindergarten reading instruction.

**Part I** asks you to provide background data about yourself and your campus.

**Part II** asks you to provide general information about your campuses' utilization of Response to Intervention.

**Part III** asks you to identify instructional strategies and arrangements you utilize to teach **phonemic awareness** skills at the core classroom level (Tier 1).

**Part IV** asks you to identify types of programs you use to implement targeted, focused interventions (Tier 2) in the area of **phonemic awareness**.

**Part V** asks you to identify instructional strategies and arrangements you utilize to teach **phonics** skills at the core classroom level (Tier 1).

**Part VI** asks you to identify types of programs you use to implement targeted, focused interventions (Tier 2) in the area of **phonics**.

**Part VII** seeks to obtain information about additional supports available on your campus to assist kindergarteners at-risk for reading failure.

## Part I.  Demographics

1)     What is your current teaching position?
      Kindergarten teacher for full day kindergarten
      Kindergarten teacher for half day kindergarten
      Other (please specify)

2)     Please indicate the type of education degrees you have received as well as the year in which you received each degree.
      Bachelor's
      Master's
      Doctorate
      Additional training in reading instruction_____

3)     How many years of teaching experience do you have?
        1-2
        3-5
        6-10
        11-15
        16+

4)     What is your gender?
      Female
      Male

5)     What is your racial or ethnic identity?
      Black/African American
      White/European American
      Hispanic/Latino
      Asian/Pacific Islander
      Native American/Eskimo
      Multiracial
      Other racial or ethnic group (specify group)

6)     What type of teacher education program led to your teacher certification?
      Undergraduate University-based Program
      Postbaccalaureate Certification Program
      Master's Degree Certification Program
      Alternative Certification Program

7) Approximately how many students are enrolled in your school?

8) What grades are included at your campus?
   Kindergarten - First Grade
   Kindergarten - Second Grade
   Kindergarten - Fifth Grade
   Other (please specify)

9) Does your kindergarten program include specific instruction on reading objectives? One or more options may be selected.
   Yes
   No
   General language arts instruction is provided, but specific reading skills are not targeted until first grade
   Other (please specify)

10) In which Regional Service Center is your school located?
   Region 10
   Region 11

11) In what type of community is your school located?
   Urban community
   Suburban community
   Rural community

## Part II.  General Information about Your Campuses' Utilization of
## Response to Intervention

**Response to Intervention (RTI)** is a multi-tiered process of ensuring that all students receive high quality, evidence-based and data-driven instruction.

**Tier 1 of the Response to Intervention** model includes high quality core classroom instruction for all students.

**Tier 2 of the Response to Intervention** model includes targeted, focused interventions provided through individual or small group lessons.  These interventions are designed to supplement, enhance and support students who are struggling with reading and are provided in addition to core classroom instruction.

12) Does your campus implement a tiered instructional program or Response to Intervention (RtI) model? One or more options may be selected
   Yes
   No
   Uncertain
   If yes, we implement RtI beginning at grade ____(please specify)

13) Other than the RTI model, does your campus kindergarten program provide targeted, focused interventions for students struggling to master reading objectives?
   Please provide a brief description of your system for providing targeted, focused interventions.

   (1000 characters remaining)

14) Does your campus kindergarten program utilize ability grouping in the area of reading? One or more options may be selected.
   Yes
   No
   Guided reading groups
   Because we utilize ability grouping in reading, we do not implement a specific system of providing more highly targeted, focused interventions (such as RTI Tier 2 interventions) for kindergarteners

15) Have you received in-depth training to enable you to identify and provide differentiated instruction for kindergarten students learning to read?

     Yes
     No
     Somewhat
     More training needed
     Other (please specify)

16) How many hours of staff development have you received about Response to Intervention (RTI)?

     2-4
     5-7
     8+
     Only few minutes, such as during faculty meetings
     I have not attended staff development about RtI
     Other (please specify)

17) How would you describe your level of understanding about the RTI process in reading?

     High
     Average
     Low
     I have no experience with RTI

18) What type(s) of targeted, focused (often referred to as Tier 2) interventions are used for kindergarten students struggling to master reading objectives?

(1000 characters remaining)

19) Are kindergarten students struggling to master reading objectives identified as at-risk AND provided with opportunities for differentiated instruction?

     Identified at-risk AND differentiated instruction provided
     Identified at-risk, NO differentiated instruction provided
     Not identified at-risk AND differentiated instruction provided
     Not identified at-risk, NO differentiated instruction provided
     Other (please specify)

20) When a kindergarten student is identified as below level in early reading development, at what point in the year are targeted, focused instruction (or interventions similar to Tier 2) initiated?

     Early in the year, shortly after benchmark or other diagnostic testing indicates specific deficit areas
     After winter break
     After spring break
     Targeted interventions for reading not provided in kindergarten
     Other (please specify)

21) When a student is making insufficient progress with general classroom reading instruction, do you discuss the student with a campus-level team which recommends additional strategies to improve progress and might include a referral for special education testing?

     Yes
     No
     We discuss students who are not reaching grade-level expectations with administrator.
     Other (please specify)

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22) If your campus provides targeted, focused reading instruction (or interventions similar to Tier 2) for kindergarten students, what types of data are utilized to determine which students may need targeted, focused interventions (Tier 2)? One or more options may be selected.

     Diagnostic Reading Assessment
     Reading level in guided reading series
     Benchmark data

Data from computer programs (such as Istation)
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
Texas Proficiency Reading Index data
Percentile ranking in class (ie. bottom 20% of class)
Number of letters/letter sounds mastered
Curriculum based measures

23) How is targeted, focused instruction (or interventions similar to Tier 2) developed for kindergarten students struggling to master reading objectives?
Interventions are based on specific student deficits, such as in the area of phonemic awareness or phonics.
Interventions are very similar for each student with a few activities designed to address the student's deficit areas.
Interventions are the same for each student who requires Tier 2 interventions.
We do not provide targeted, focused interventions at the kindergarten level.
Other (please specify)

24) At your campus, who provides targeted, focused reading interventions (interventions similar to Tier 2) for kindergarten children who need more support than is available through core classroom instruction? One or more options may be selected.
Classroom teacher
Reading specialist
Paraprofessional
Parent volunteer
Community volunteer
Special education personnel
Other (please specify)

25) At your campus, how frequently are targeted, focused interventions provided?
Once daily
Two times per week
Three times per week
Once per week
Other (please specify)

26) At your campus, how much time is provided for targeted, focused intervention sessions?
15 minutes or less
15-30 minutes
30-45 minutes
45-60 minutes
More than 60 minutes per session
Other (please specify)

27) Does your campus provide targeted, focused interventions to students struggling to master reading skills supplemental to general classroom instruction?
Yes
No
Other (please specify)

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**Part III:　Strategies and Instructional Arrangements for Phonemic Awareness Skills**

**Phonemic awareness** is the ability to focus on and manipulate phonemes in spoken words.

To what extent do you use the following **instructional strategies** to teach **phonemic awareness** at the core classroom level (Tier 1)?

| | Always | Often | Sometimes | Never | Other |
|---|---|---|---|---|---|
| 28) Use visual or tactile representations of letters when teaching phonemic awareness | | | | | |
| 29) Emphasize differences in the way the mouth moves to produce sounds | | | | | |

**30)** Incidentally teach phonemic awareness

**31)** Teach all phonemic awareness skills concurrently

**32)** Focus on 1 or 2 phonemic awareness skills at a time

To what extent do you use the following **instructional arrangements** to teach **phonemic awareness** at the core classroom level (Tier 1)?

| | Always | Often | Sometimes | Never | Other |
|---|---|---|---|---|---|
| **33)** Direct instruction | | | | | |
| **34)** Center activities | | | | | |
| **35)** Cooperative learning | | | | | |
| **36)** Guided reading groups | | | | | |
| **37)** Individual seat work | | | | | |

## Part IV. Targeted, Focused Interventions (Tier 2) for Phonemic Awareness Skills

**38)** What type(s) of targeted, focused intervention programs (or interventions similar to Tier 2) are provided for students who are struggling with reading in the area of **phonemic awareness** at your campus? (One or more options may be selected).

    We do not implement targeted, focused interventions for kindergarten

    Commercial program

    District-designed program

    Computer-based program

    Eclectic program

    Accelerated Reading Instruction (ARI)

    Plan recommended by 504 committee

    Other (please specify)

## Part V. Reading Strategies and Instructional Arrangements for Phonics Skills

**Phonics** is a method of instruction that teaches students how the sounds of speech are represented by letters and spellings.

To what extent do you use the following **instructional strategies** to teach **phonics** at the core classroom level (Tier 1)?

| | Always | Often | Sometimes | Never | Other |
|---|---|---|---|---|---|
| **39)** Teach letter sounds in a planned sequence | | | | | |
| **40)** State phonics objective prior to lesson presentation | | | | | |
| **41)** Teach letter sounds first in isolation then in context of connected reading | | | | | |
| **42)** Provide texts with decodable words | | | | | |
| **43)** Initially teach letter sounds within embedded contexts of stories | | | | | |
| **44)** Teach letter sounds in a random sequence | | | | | |

To what extent do you use the following **instructional arrangements** to teach **phonics** at the core classroom level (Tier 1)?

| | Always | Often | Sometimes | Never | Other |
|---|---|---|---|---|---|
| **45)** Direct instruction | | | | | |
| **46)** Center activities | | | | | |
| **47)** Cooperative learning | | | | | |
| **48)** Guided reading groups | | | | | |
| **49)** Individual seat work | | | | | |

## Part VI. Targeted, Focused Interventions (Tier 2) for Phonics Skills

**50)** What type(s) of targeted, focused intervention programs (or interventions similar to Tier 2) are provided for students who are struggling with reading in the area of **phonics** at your campus? (One or more options may be selected).

    We do not implement targeted, focused interventions for kindergarten

     Commercial program
     District-designed program/curriculum
     Computer-based program
     Eclectic program
     Accelerated Reading Instruction (ARI)
     Plan recommended by 504 committee
     Other (please specify)

\*51) How would you rate the effectiveness of your campus in providing targeted, focused interventions at the kindergarten level? (For example Tier 2 interventions or other systems for providing targeted, focused interventions.)

     A. Highly effective
     B. Moderately effective
     C. Somewhat effective
     D. Minimally effective
     E. Not provided

## Part VII. Additional Supports for Assisting Kindergarteners Struggling with Reading

52) Is it an option for kindergarten students with specific reading difficulties to be referred for special education testing when recommended by a campus-level team? You may select one or more options.

     Yes
     No
     In my opinion, most kindergarten students who struggle to master reading objectives will become successful readers as they mature without the need for interventions

53) In the past 2 years, how many students have you referred to the campus-level team whose purpose is to provide additional strategies for students struggling in reading?

\*54) In the past 2 school years, how many students struggling specifically in the area of reading have been referred for special education assessment by campus-level support team?

55) How many kindergarten students from your class were retained in the previous school year?

56) When students advance to first grade without mastery of a significant number of reading objectives, what process is utilized at first grade for assisting this student in reaching grade level expectations? (such as continued RTI or other interventions, special education referral, Reading Recovery etc)

(1000 characters remaining)

57) Please provide specific information about your school's RTI or tiered instructional programs or other methods of differentiating reading instruction for kindergarteners. Your additional details will be summarized and included in the final study.

(1000 characters remaining)

58) In your opinion, has the RTI process assisted you in provided differentiated instruction for kindergarten students who have difficulty mastering reading objectives?

     Yes
     No
     Undecided

59) If you wish, please provide any additional information regarding your perspectives about teaching reading at the kindergarten level.

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