

Benefits of Providing a Reading Intervention

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A Special Project

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Dr. Gordon Martinen

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FACULTY APPROVAL

Benefits of Providing a Reading Intervention

Approved for the Faculty

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## ABSTRACT

The author of the project produced a descriptive study in order to prove the validation of providing a reading intervention to students who struggled with phonics and phonemic awareness. The researcher provided a daily intervention for the students for a total of six weeks. The researcher provided weekly individual testing for the participants, which were the measurement of the results in this study.

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## CHAPTER 1

### Introduction

#### Background for the Project

Phonics and phonemic awareness were a necessary skill required for success in learning to read in Kindergarten. Students must automatically know each letter sound in order for them to begin to read. National concern about reading readiness was addressed by the National Institute of Child Health and Human Development (NICHD), which had characterized reading difficulty as a major public health concern, because reading failure was associated with social ills such as dropping out of school, delinquency, unwanted pregnancy and unemployment. According to Louisa C. Moats, Ed.D (2005), the author of Language Essentials for Teachers of Reading and Spelling (LETRS), unless children learned to read well, they could not make it in the twenty-first century society (2005, p. 6 ).

Over the past twenty years the teaching of reading changed from teaching with a whole language view to teaching using phonics and phonological awareness. At the Kindergarten level students needed to acquire phonemic awareness, phonics, letter knowledge and the alphabetic principle to master reading.

The researcher of this special project was a Kindergarten English language learner (ELL) teacher at White Center Heights Elementary School (WCHES), in

White Center, Washington and had found through the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test that some of the ELL students in the class had difficulty with phonics and phonemic awareness.

### Statement of the Problem

In September, 2009, the researcher's twenty Kindergarten students took the fall DIBELS assessment. In October, 2009, the researcher received the assessment data back from the DIBELS test and realized that six of the twenty ELL Kindergarten students at White Center Heights Elementary School (WCHES) were not effectively learning the letter names and sounds in order to produce a solid foundation for reading. These six students tested in the intensive category on the DIBELS assessment and were considered at risk in reading.

The researcher was concerned for the students who lacked their letter name and sound knowledge. The researcher understood that if the students did not learn basic phonics and phonemic awareness skills, the students could not learn to read. Therefore the researcher began a six week intervention program, which reinforced the teaching of phonics and phonemic awareness to the struggling students.

### Purpose of the Project

The objective of the project was to determine if the learning of phonics and phonemic awareness could be improved by providing a ten-minute, daily intervention for the struggling students. The researcher analyzed the DIBELS

scores from September, 2009, and chose six students who tested as at risk on the assessment. The researcher then had the classroom student teacher provide a daily intervention to the six students, which reinforced the basic learning of the letters and the sounds the letters made. Finally the researcher provided a weekly assessment to determine if the intervention provided significant gains in the students' knowledge of letter names and letter sounds.

### Delimitations

According to the researcher the Kindergarten class at WCH had an enrollment of twenty as of September, 2009. The male population consisted of twelve and the females totaled eight. The Highline School district records showed that the majority of the students were Spanish (35%), followed by Vietnamese (25%), Somali (20%), Arabic (10%), Cambodian (5%) and Pilipino (5%). There were 95% of the students that received free or reduced lunch at this time.

The Kindergarten teacher had a Bachelor of Arts degree in education with an endorsement in ELL and was highly qualified according to the Washington State Office of Superintendent of Public Instruction. The student teacher that provided the intervention had a Bachelor of Arts degree in communication, with an emphasis in advertising and a minor in English. The student teacher was enrolled in the Master of Arts in Education program through Seattle Pacific University of Seattle, Washington. The student teacher intended to graduate in the summer of 2010.

The Kindergarten classroom at WCHES that was used for this research project had the population of twenty. The researcher chose students in the intensive category from the fall DIBELS assessment and provided a six week, daily intervention, which focused on the letter names and the letter sounds. This study was a descriptive study. The researcher wanted to find out if an intervention would help the struggling students learn their letter names and letter sounds. To begin the descriptive study, the students completed the DIBELS assessment between September 21, 2009 and September 25, 2009 as a precursor of data. The test included the initial sound fluency (ISF) subtest and letter naming fluency (LNF) subtest. The ISF subtest assessed the student's ability to recognize and produce initial sounds in words. The LNF subtest measured the student's ability to recognize and name random mixture of uppercase and lowercase letters on a page, which included several fonts. The DIBELS results included a recommendation for intervention; all students scored in one of the following areas: benchmark, strategic or intensive.

### Assumptions

The researcher assumed that students come to school ready to learn and do their best work. The researcher assumed that the student teacher was properly trained and prepared to teach the intervention to the at risk students. The researcher also assumed that the DIBELS test and its results were reliable and age appropriate for the Kindergarten students. Finally the researcher assumed that the

testers for the DIBELS test gave the assessment to the students in a consistent manner and each tester was trained to assure that the testing protocol was consistent.

### Hypothesis

The researcher hypothesized that students who actively participated in a daily intervention, which included repetitious drill and immediate teacher feedback would make significant academic gains in phonics. Students who received an intense reading intervention for six weeks made significant improvement in their weekly scores on the teacher created assessment.

### Significance of the Project

The significance of the project was deemed important, because the researcher understood the need for a solid phonological basis in reading for each Kindergarten student. The researcher wanted to prove that one of the most important changes in education this decade was the realization that early identification and intervention helped prevent reading problems for many students. Schools needed to provide intervention instruction immediately after a student was identified as at risk, even if the student had not begun formal reading instruction. According to the authors of the book, Phonemic Awareness in Young Children (Adams, Foorman, Lundberg & Beeler, 1998, pp. 1- 2) research clearly showed that phonemic awareness can be developed through instruction; furthermore, that doing so would significantly accelerate the child's reading and

writing achievement. Research found that with early intervention, many students were able to avoid the major problems in the future with reading difficulty.

### Procedure

The researcher began this descriptive study in September, 2009 when all ELL Kindergarten students were given the state-wide DIBELS assessment, which was developed by Good and Kaminski in 2002 (Moats, 2005, p. 1). The DIBELS assessment measured precursors to literacy, including phonemic awareness skills. The DIBELS assessment was a curriculum-based measure and included a set of standardized individually administered subtests, which could be used to identify and monitor children at risk for reading failure from kindergarten to the sixth grade. The students were given two one-minute assessments. The skills that were assessed included initial sound fluency (ISF) and letter naming fluency (LNF). The ISF subtest assessed the student's ability to recognize and produce initial sounds in words. The LNF subtest measured the student's ability to recognize and name a random mixture of uppercase and lowercase letters on a page, which included several fonts. The DIBELS results included a recommendation for intervention; all students scored in one of the following areas: benchmark (no intervention needed), strategic intervention or intensive intervention. The DIBELS scores were used as a pretest and provided information to the researcher about which students were at risk in reading and therefore needed an intervention.

The researcher then chose six students from the assessment whose scores identified the student in the intensive intervention range. The researcher implemented a six week intervention with the intensive students. The focus of the intervention was based on learning the letter names and the letter sounds, because the researcher had learned its importance as the foundation for reading. The goal was to have each student participant involved in the intervention automatically know the letter names and sounds. Assessments were given at the end of the each week and the data were collected to see how many letter names and letter sounds the participants knew.

#### Definition of Terms

automaticity. Automaticity was defined as the ability to identify letters or words so that the literacy user's resources can be directed to comprehending and composing; it implied automatic level of responses with various tasks, such as the speed of retrieving the sound of a specific letter; processed fluently and requiring little effort or attention

benchmark. Benchmark was defined as a student who was meeting grade level expectations and considered at low risk

English language learner. An English language learner was defined as a person who was learning English and whose primary language is other than English



graphemes. Graphemes were defined as a letter or combination of letters that spells a phoneme; shown in print using // marks around the phoneme

intensive. Intensive was defined as a student who was not meeting grade level expectations and was considered at high risk

phoneme. Phoneme was defined as one of the speech sound units that was combined to make words in a language; English has 40 to 44 phonemes

phonics. Phonics was defined as the study of the relationship between the speech sounds (phonemes) and the letters (graphemes) that represent them

phonemic awareness. Phonemic awareness was defined as the ability to hear, identify and manipulate the individual sounds in spoken words

phonological awareness. Phonological awareness was defined as an awareness of various speech sounds such as syllables, rhyme, and individual phonemes

strategic. Strategic was defined as a student who at times met grade level expectations and was considered at risk

syllable. A syllable was defined as a word part that contains a vowel or, in spoken language, a vowel sound

zone of proximal development, Lev Vygotsky's learning theory was defined as "the distance between the actual developmental level as determined by

independent problem solving and the level of potential developmental level as determined by independent problem solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978).

### Acronyms

DIBELS. Dynamic Indicators of Basic Early Literacy Skills

ELL. English Language Learner

ISF. Initial Sound Fluency

LNF. Letter Naming Fluency

LETRS. Language Essentials for Teachers of Reading and Spelling

NICHD. National Institute of Child Health and Human Development

OSPI. Office of Superintendent of Public Instruction

WCHES. White Center Heights Elementary School

## CHAPTER 2

### Review of Selected Literature

#### Introduction

The following literature was reviewed to clarify the importance of mastering phonics and phonological awareness in reading. Research had shown that students must know each of the letter sounds automatically to begin to read. A correlation study had identified that phonemic awareness and letter knowledge were the two best school-entry predictors of how well children would learn to read during their first two years of school (Chauvin, Adams, Kesler, 2002, p.3). Students who struggled with phonics and phonological awareness were helped through a daily intervention that was focused on the foundations of reading.

#### The Kindergartener's Brain Capacity

Learning, teaching, identifying educational goals, and thinking had always been complicated concepts in education. Benjamin S. Bloom was diligent and patient while seeking to answer these important questions and concepts. Bloom made the improvement of student learning the central focus of his life's work. Throughout discussions, during the 1948 Convention of the American Psychological Association, Bloom decided to spearhead a group of educators who eventually undertook the ambitious task of classifying educational goals and objectives. Their intent was to develop a method of classification for thinking

behaviors that were believed to be important in the processes of learning.

Eventually, this framework became taxonomy of three domains:

the cognitive domain - knowledge based domain, consisting of six levels

the affective domain - attitudinal based domain, consisting of five levels

the psychomotor domain - skills based domain, consisting of six levels.

In 1956, eight years after the group first began, work on the cognitive domain was completed and a handbook commonly referred to as Bloom's Taxonomy was published. The small volume, which was intended for university examiners, had been transformed into a basic reference for all educators worldwide. Unexpectedly, it was used by curriculum planners, administrators, researchers, and classroom teachers at all levels of education (Davis, Chen, Cambell, 2010, para 1).

According to Michael Pohl's website about Bloom's Taxonomy (2000), <http://eprintice.sdsu.edu/J03OJ/miles/Bloomtaxonomy%28revised%291.htm> Bloom's understanding that taxonomy and classification were synonymous helped dispel uneasiness with the term. Bloom's Taxonomy was a multi-tiered model of classifying thinking according to six cognitive levels of complexity. Throughout the years, the levels had often been depicted as a stairway, leading many teachers to encourage their students to climb to a higher (level of) thought. The lowest three levels were: knowledge, comprehension, and application. The

highest three levels were: analysis, synthesis, and evaluation. The taxonomy was hierarchical; in that each level was subsumed by the higher levels. In other words, a student functioning at the application level had also mastered the material at the knowledge and comprehension levels. This level research provided information on the natural divisions of lower and higher level thinking. Clearly, Bloom's Taxonomy stood the test of time (para. 1).

Research from the past had always emphasized the importance of children being active learners. Lev Vygotsky in 1978 influenced this research by sharing his belief in the zone of proximal development. This zone was defined as the distance between the actual developmental levels as determined by independent problem solving under adult guidance. In other words, what a child performed today with assistance, would be able to perform tomorrow independently (Bransford, 2000, p 81). From a neuroscience perspective, instruction and learning were important parts of a child's brain development. Brain development in children involved continuous interactions between a child and the external environment. Physical alterations in the brain occurred during learning, for example, the nerve cells become more efficient and powerful, a greater supply of blood went to the brain through the capillaries and even the weight and thickness of the cerebral cortex increased as learning occurs. The process of synapse elimination occurred relatively slowly in the cerebral cortical regions which were involved in aspects of language and other higher cognitive functions. Different

brain systems appeared to develop according to different time frames; therefore, this process suggested that children's brains were ready to learn different things at different times.

Reading and writing were acquired skills for which the human brain was not yet fully evolved. With teaching, children typically learn to read at about age five or six and still needed several years to master the skill. (Moats, 2005, p.11)

#### Phonics and Phonemic Awareness.

Students in Kindergarten needed to learn how to attach sounds to printed symbols or letters, as a basic building block for reading. Fountas and Pinnel reminded educators in their book, Word Matters (1998, p. 4-5) that a whole network of knowledge surrounds a single letter: it had a shape, it was connected to a sound, it had a name and it could be connected to other letters to make a word. (Fountas & Pinnel, 1998, p. 6). Phonics was taught by becoming familiar with the letters and knowing their related sounds. Phonics was the understanding that there was a predictable relationship between phonemes and graphemes, the letters that represent those sounds in written language. The purpose for teaching phonics was to enable students to learn and apply the alphabetic principles; phonics required the understanding that there were systematic relationships between written letters and spoken sounds (Chauvin, 2002, p. 3). Phonics instruction was reading instruction that taught students the relationship between

the letters of the written language (graphemes) and the individual sounds (phonemes) of the spoken language. If children were to benefit from phonics instruction, they needed phonemic awareness.

The small units of speech that corresponded to the letters in the alphabet were called phonemes. The awareness that language was composed of these small sounds was known as phonemic awareness. Research had found that without direct instructional support, phonemic awareness was not learned by 25% of middle-class first graders and even more for students who come from less literacy-rich backgrounds. (Adams, 1998, p.1).

A common misunderstanding about phonemic awareness was that it was the same as phonological awareness. However, phonemic awareness had been found to be a subcategory of phonological awareness. The focus of phonemic awareness was narrow, which included identifying and manipulating sounds in words. The focus of phonological awareness was much broader, which included identifying and manipulating larger parts of spoken language, such as words, syllables, and phonemes (Adams et al, 1998, p.3).

The ultimate goal for reading instruction was obtaining a fluent reader that also had comprehension about what was read. Learning to decode was an important step in the process of fluent reading. Decoding was defined as the matching of sounds in oral language to written symbols, or sounding out words. The ease of decoding was also important for comprehension, because effortful

decoding often prevented attention to the meaning of the text. A very important precursor in decoding was phonological awareness (Adams et al, 1998, p.4).

Phonemic awareness was defined as the ability to hear, identify and manipulate the individual sounds in spoken words. The alphabetic principle was the knowledge that letters and letter combinations represented sounds in the oral language (Moats, 2000, p. 13). Phonemic awareness set the stage for meaningful phonics instruction, which taught the relationship between sounds and written symbols.

Phonemic awareness was important in the development of early reading because it allowed children to associate sounds with letters, a skill needed for decoding (Foorman, Moats, Fletcher, 2003, p.16, 289-294). When children understood that words consisted of smaller sound segments, they could be instructed to match auditory sounds in words to printed letters, which enabled a sounding out process for written words (Torgesen, 2005, p. 22-27). The goal was to achieve a certain level of proficiency in reading, so readers no longer relied on phonemic awareness to decode written words sound by sound. This process could be too slow and effortful to support reading fluency and comprehension.

Many researchers cited lack of phonological awareness as a reason for reading failure. Although phonemic awareness was not the only ability needed for successful reading, learning phonics and phonemic awareness was essential in learning to read.



### Importance of Intervention

One of the most important changes in education this decade was the realization that early identification and intervention could prevent reading problems for many students (Hall, 2006 p. 5). New screening instruments made early intervention possible because they identified the Kindergarten through third grade students who were at risk for, or were already experiencing, reading difficulties. Schools provided intervention instruction immediately after a student was identified as at risk, sometimes before a student had begun formal reading instruction. With early intervention, many students avoided the major problems they would have faced if the reading difficulty had been dealt with much later.

The first step in preventing reading difficulties was accurate identification. Screening, such as the DIBELS test, was meaningless without having targeted an intervention that changed reading outcomes for children. The researchers followed the Preventive Model of intervention, which assured that each child who lacked any critical reading skills was placed in a small intervention group and was given instruction targeted toward developing the weak or missing skill. According to Hall (2006 pp. 5-15) in I've Dibeled Now what? intervention was most effective when it was delivered in small groups of three to five students who were working on the same specific skill. The intent of small group intervention instruction for students below benchmark was to focus on one or two key skill areas for students whose instructional needs were similar. DIBELS data were

helpful for placing students in intervention groups because many of the indications assessed the students' abilities in precursor or underlying skills in reading, which included phonemic awareness and the alphabetic principle. The teacher worked with the small group on a skill, provided extensive opportunities for practice and gave immediate corrective feedback to the students until the students learned the skill.

With the increased emphasis on reading instruction in Kindergarten, many children had learned to read by the end of their Kindergarten year. The author Hall (2006) had identified six essential goals for Kindergarten students to learn in order to be prepared to enter the first grade. The first goal was a strong sense of phonemic awareness, followed by fluency in naming uppercase and lowercase letters. The final four goals were knowledge of how a book was read, realization that reading was comprehended, strong oral language skills and an expansive vocabulary. The author Hall (2006) continued to state that the more Kindergarteners knew about phonemic awareness and the alphabet, the more they learned to read from systematic and explicit instruction in the first grade.

The intervention that was used was based on the data collected from the September, 2009 DIBELS assessment. The data identified those students who needed extra help in specific areas of phonological awareness.

Over the past two decades scientists have researched how children learn to read. One of the most significant findings was how important early intervention

was to averting later problems for students who were found to be at risk in reading (Torgesen, 2005, p. 78). Intervention was considerably more efficient and effective when delivered earlier rather than later in the elementary school years. According to the National Institute of Child Health and Human Development branch of the National Institutes of Health, it took four times as long to remediate a student with poor reading skills in fourth grade as in late Kindergarten. Therefore the earlier a teacher provided reading help to a student, the less time that student needed to catch up.

#### Teaching English Language Learners

Research had proven that the United States had become more ethnically and linguistically diverse each year and had proven that more than ninety percent of new residents to the United States had come from non-English speaking countries. In fact, in the last decade, the total number of English learning students increased by seventy percent and was projected to grow even more according to the National Clearinghouse for Bilingual Education in 1999 (Herrel and Jordan, 2008, Preface p.xiii).

It was particularly important for children who were English learners to have experienced a wide, rich range of oral language, according to the authors Fountas and Pinnel in their book titled Word Matters (1998, p. 6). The authors continued to report that there were more than 5.3 million school-aged children in the United States whose primary language was other than English. According to

the Office of Superintendent Instruction (OSPI), the ELL programs were designed to provide ELL students with English language development while concurrently teaching the regular curriculum in English. This was accomplished by scheduling English learning children into an ELL classroom where the teacher had been trained to develop a student's English language proficiency as quickly as possible by utilizing a communicative-based approach. The author of Making Content Comprehensible for English Learners, explained that sheltered instruction was an approach for teaching content to English learners in a strategic ways that make the subject matter concepts comprehensible while promoting the student's English language development (Echevarria, Vogt, and Short, 2007, p. 5). A typical ELL student required anywhere from four to six years to acquire academic English proficiency, which allowed them to be able to compete academically with their native English peers.

As educators we needed to understand the ELL students' diverse backgrounds. These students brought a wide variety of educational and cultural experiences to the classroom. Teachers needed to know their students' backgrounds and abilities in their native language in order to incorporate effective techniques and materials in their instructional practices. (Echevarria, 2007, p. 7).

The foundation of school success was found to be academic literacy in English. We learned primarily through language and the use of language to express our understanding. As Lemke (1988, p.81) explained:

Educators have begun to realize that the mastery of academic subjects is the mastery of their specialized patterns of language use, and that language is dominant medium through which these subjects are taught and students' mastery of them tested. Without proficient oral and written English language skills, students are hard pressed to learn and demonstrate their knowledge of mathematical reasoning, science skills, social studies concepts, and so forth. Furthermore, the relationship between literacy proficiency and academic achievement grows stronger as grade levels rise – regardless of individual student characteristics.

English language learners must develop literacy skills for each content area in their second language. At the same time they must simultaneously learn, comprehend, and apply content area concept through their second language (Echevarria, et al., 2007 p. 10,11).

According to the research findings from the National Literacy Panel on Language-Minority Children and Youth, ELL students benefitted from instruction in the key components of reading, such as phonemic awareness and phonics. Certain first language skills and abilities, such as phonemic awareness, easily transferred to English literacy.

## Summary

The research was organized to provide an introduction to the importance of a strategic intervention in Kindergarten. The researcher found through the literature review the importance of mastering phonics and phonological awareness in order for Kindergarteners to begin the process of reading. If students did not have a solid foundation in phonics, they struggled throughout their schooling years in reading. The literature reviewed stated that children typically learn to read at about age five or six, which was a usual age for a Kindergartener.

The researcher was reminded of the benefits for intervening in the student's behalf while they were still young. A ten-minute daily intervention made a difference in a student's learning, by helping them to review their phonics and it gave the students a deeper foundation when they learn to read. The goal was to achieve a certain level of proficiency in reading, so readers no longer relied on phonemic awareness to decode written words sound by sound. This process could be too slow and effortful to support reading fluency and comprehension.

Finally, the researcher was also reminded through the literature review of the importance of using differentiated teaching and scaffolding when teaching ELL students. Teachers needed to know their students' backgrounds and abilities in their native language in order to incorporate effective techniques and materials in their instructional practices. According to the reviewed literature, the researcher

was reminded that ELL students benefitted from instruction in the key components of reading, such as phonemic awareness and phonics. There were certain first language skills and abilities, such as phonemic awareness, that easily transferred to English literacy.

## CHAPTER 3

### Methodology and Treatment of Data

#### Introduction

The goal of this research project was to prove that kindergarten ELL students who received an intentional intervention that focused on phonemic reading would more effectively master the pre-requisites to reading by learning the alphabet letter names and letter sounds. Considerable research had been done regarding interventions for reading during the last decade and it had been documented that most students with reading difficulties could be provided interventions that were associated with improvements in the students' reading outcomes (Foorman et al, 1998, p. 10,11). These studies and others had demonstrated the importance of early identification and intervention for reducing the reading gap between students with reading difficulties and their grade-level peers (Scanlon, Small, & Fanuele, 2006, pp. 44-65).

Early reading interventions had been consistently effective in improving outcomes in more basic or foundation skills such as phonemic awareness, word attack, and word reading. Several studies had also documented significant gains for students with reading difficulties in the areas of reading fluency and comprehension after an intervention. A substantial research base existed for implementing effective interventions for students at risk for and with reading difficulties in the elementary grades. For the majority of students, these



interventions resulted in significantly improved reading performance over time. In the article, “The Effect of Music Instruction in Beginning Readers”, by Joyce Estlund Gromko, (2000), the author reminded the reader that research had shown that one of the best predictors of how well children learned to read was the ability to recognize that a spoken word consisted of individual sounds or phonemes. Therefore, a subgroup of individuals from the National Reading Panel conducted a research project in phonemic-awareness instruction. From this study researchers found that letters provided visible symbols for phonemes and enhanced children’s memory for the sound by giving the sound a shape and name. To help reinforce the letter name and sound, the teachers had created a song for each letter to teach its name and more importantly its sound.

### Hypothesis

The researcher hypothesized that students who actively participated in a daily intervention, which included repetitious drill and immediate teacher feedback would make significant academic gains in phonics. Students who received an intense reading intervention for six weeks made significant improvement in their weekly scores on the teacher created assessment.

### Methodology

The thesis was a descriptive study of six kindergarten students who were classified as intensive in their knowledge of letter names and letter sounds according to the state-wide DIBELS assessment and the Highline district

kindergarten assessment. The students worked with the student teacher for ten minutes each morning for six weeks. The first week consisted of reviewing the ten letters that had already been taught and their sounds; once the letters were mastered other letters will be added until all twenty-six letters of the alphabet were taught.

### Participants

Students who classified as intensive on their DIBELS test and the kindergarten assessment were chosen to participate in the intervention. Six students were selected to participate in the weekly intervention, four students were male and two students were female. The selected six children were separated into two groups of three. The student teacher provided an intervention with each group first thing in the morning for approximately ten minutes each.

### Instruments

The students were tested with the DIBELS assessment, which was a state wide assessment. The Office of Superintendent of Public Instruction (OSPI) recommended this test to gather data about students. The DIBELS assessment was a curriculum-based measure and included a set of standardized individually administered subtests, which could be used to identify and monitor children at risk for reading failure from kindergarten to the sixth grade. Furthermore, OSPI had agreed through practice that this is a reliable assessment for the Highline school district to use.

In September all students were given the state-wide DIBELS assessment (Dynamic Indicator of Basic Literacy Skills). The students were given two one minute assessments. The first test measured the student's initial sound fluency and the second test measured the student's knowledge of uppercase and lowercase letter names. The DIBELS assessment identified students who were classified as intensive were chosen to participate in the intervention.

During the intervention the student teacher would use alphabet flashcards with the upper and lower case letters on each. The student teacher would also use the teacher created alphabet book, which had a song for each letter and states the letter name and sound.

### Procedure

The experimental group received a daily intense phonetic intervention for six weeks, during the 2009-2010 school years. In September, 2009, the group of students took the DIBELS assessment. The six students who scored in the intensive category on the test were selected to receive the intervention. The focus of this intervention plan was based on learning the letter names and sounds. The goal was to have each student involved in the intervention automatically know their letter names and sounds, by reviewing them each day through different means. The teacher worked with the two groups of three students each morning for ten minutes. The first week the student teacher reviewed the letter names and sounds by the drilling of flashcards and reviewing a song that the participants had

learned for that letter and sound. The teacher showed the flashcard to the group of students and they told her the letter name the first time and the letter sound the second time. Once the group of letters was learned, the teacher reviewed these letters and added new letters to the intervention until all the alphabet had been reviewed and taught. The teacher then had the students sing the song for each letter to reinforce the sound that it made.

An assessment was given to each participant at the end of each week to determine their progress made. The results from each of these tests provided a means for developing instruction according to student needs.

#### Treatment of the Data

Each student was assessed once a week during this six week intervention. The teacher reorganized the groups for the next week according to the needs of the students. Once students had mastered a letter name and sound, it was still reviewed once daily. New letters were added each week until all twenty-six letters of the alphabet were reviewed and taught.

To effectively progress the student's academic gains, a follow up assessment was given at the end of each week. The teacher made assessment allowed the student to tell the teacher the letter name and sound for each letter in the alphabet. The teacher recorded the correct and incorrect responses and then calculated the percentage of letter and sounds the student knew. The teacher had a

summative report at the end of the intervention to display the students' academic gains over the six weeks of intervention.

### Summary

After the results came back from the DIBELS the researcher knew it was imperative to begin an intervention for the students that tested in the intensive category. Learning letter names and more importantly the letter sounds were the foundation for reading. It was clear that before any student began to read they needed to recognize all the letters and know the sound that each letter made. Therefore the researcher selected the six students that were at risk and began a six week intervention. The intervention was daily for ten minute increments. The intervention focused on the letter names and letter sounds. The teacher gave weekly assessments to the participants to determine their academic gains.

## Chapter 4

### Analysis of the Data

#### Introduction

The researcher of this study was a kindergarten English language learner (ELL) teacher at White Center Heights Elementary School (WCHES), in White Center, Washington, and had found through the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test that some of the ELL students in the class had difficulty with phonics and phonemic awareness.

In October, 2009, the researcher found that six of the twenty ELL kindergarteners at White Center Heights Elementary School (WCHES) were not effectively learning the letter names and sounds in order to produce a foundation for reading. The researcher was concerned for the students who lacked their letter name and sound knowledge. The researcher understood that if the students did not learn basic phonics and phonemic awareness, the students could not learn to read. Therefore the researcher decided to begin an intervention program to reinforce the teaching of phonics and phonetic awareness with the struggling students.

The purpose of the project was to determine if the learning of phonics and phonemic awareness could be improved by providing an intervention to the struggling students. The researcher analyzed the DIBELS scores from September, 2009 and chose six students who tested as at risk on the test. The researcher then

had the classroom student teacher provide a daily intervention to the six students to reinforce the basic learning of the letters and the sounds the letters make. The student teacher provided an assessment at the end of each week to show the progress the students made.

### Description of the Environment

According to the researcher the kindergarten class at WCH had an enrollment of twenty as of September, 2009. The male population consisted of twelve and the females totaled eight. The majority of the students were Spanish (35%), followed by Vietnamese (25%), Somali (20%), Arabic (10%), Cambodian (5%) and Pilipino (5%). There were 95% of the students that received free or reduced lunch at this time.

The Kindergarten classroom at WCHES that was used for this research project had the population of twenty. To begin the students completed the DIBELS assessment between September 21, 2009 and September 25, 2009 as the precursor. The two tests involved were initial sound fluency (ISF) and letter naming fluency (LNF). The ISF subtest assessed the student's ability to recognize and produce initial sounds in words. The LNF subtest measured the student's ability to recognize and name random mixture of uppercase and lowercase letters on a page, which included several fonts. The DIBELS results included a recommendation for intervention; all students scored in one of the following areas: benchmark, strategic or intensive.

### Hypothesis

The researcher hypothesized that students who actively participated in a daily intervention, which included repetitious drill and immediate teacher feedback would make significant academic gains in phonics. Students who received an intense reading intervention for six weeks made significant improvement in their weekly scores on the teacher created assessment.

### Results of the Study

The results of the study provided data to address the hypothesis of the research. The six students who participated in the daily intervention were given a weekly assessment to determine academic gains. The student was asked to report each of the twenty-six letter names and letter sounds of the alphabet. The researcher recorded the participants' responses and calculated what percent of the letter names and sounds the student knew. The weekly assessment results were graphed to show each participant's weekly knowledge in both the letter names and the letter sounds. Based on the analysis, the six participants demonstrated weekly academic growth in the knowledge of their letters and sounds, because of the intervention that was provided.



Participant 1 was a male Kindergarten student. Participant 1 knew only two letter names, which were the letter “s” and “o”, according to the fall DIBELS assessment. During the first two weeks of the intervention, Participant 1 made little academic growth in the letter name and sounds. The participant began with a 10% academic knowledge and only increased to 20% by the end of week two. However, Participant 1 made academic gains beginning with week three. The student progressed to 40% accuracy of the letter names and sounds. At week six, Participant 1 tested at 54% in letter name awareness and 58% in letter sound knowledge. The data attained showed a 40% gain in knowledge during the six week intervention.

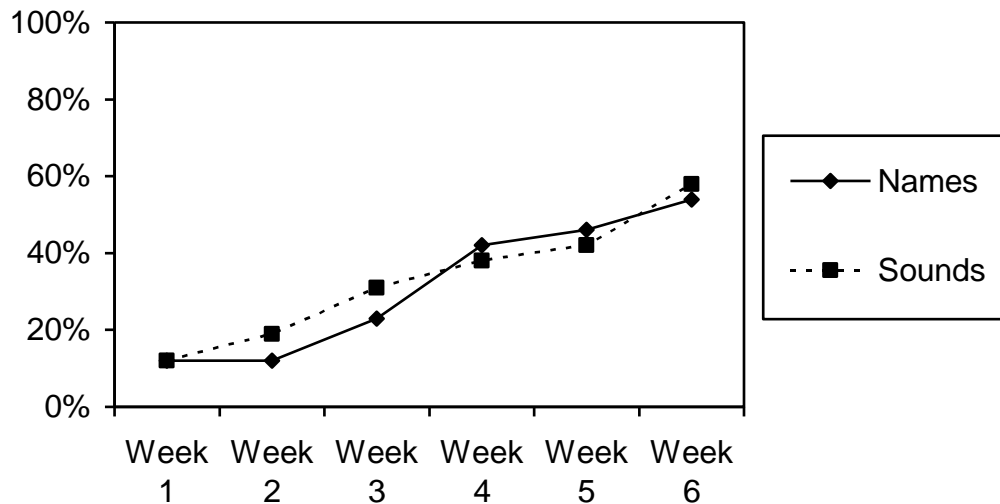


Figure1. Participant 1 Weekly Academic Growth

Participant 2 was a male Kindergarten student. Participant 2 recognized ten letter names, according to the fall DIBELS assessment. During the first three weeks of the intervention, Participant 2 made academic growth in their knowledge of the letter names and sounds, The participant started with a 40% knowledge and increased to 60% by the end of week three. The student progressed to knowing 80% of the letter names by week five and all twenty six letter names by the end of the six week intervention. Participant 2 tested at 65% knowledge of the letter sounds by the end of week six. The data attained showed a 60% increase in letter names and 40% gain in the letter sounds during the six week intervention.

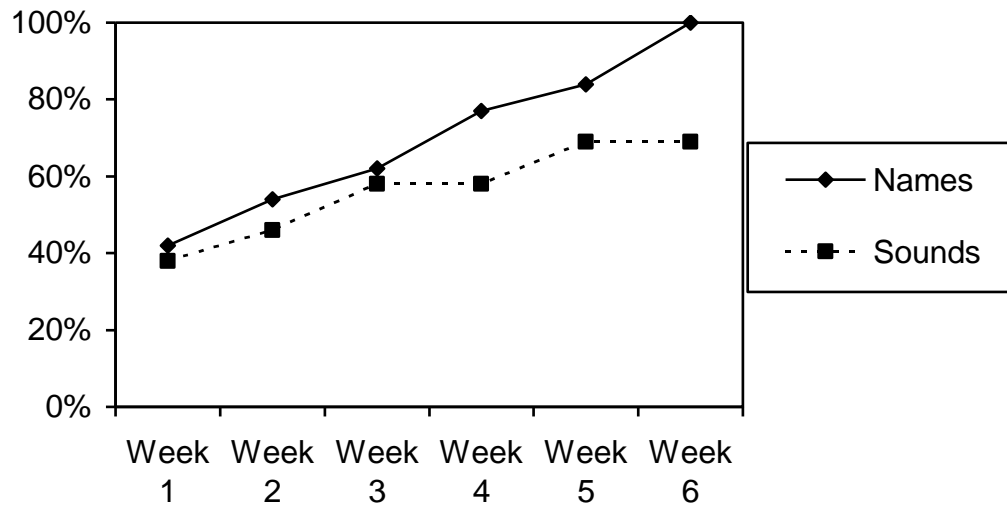


Figure 2. Participant 2 Weekly Academic Growth

Participant 3 was a female Kindergarten student. Participant 3 recognized eleven letter names, according to the fall DIBELS assessment. During the first three weeks of the intervention, Participant 3 made huge academic growth in their letter name knowledge. Participant 3 tested at 100% on the letter names category in week four. However, Participant 3 made less academic gains with the letter sounds category until week five. This student progressed slowly at first and struggled with the memorization of the letter sounds. By the time week six came, Participant 3 tested at 100% in letter sound awareness which gained a 40% increase in one week. The data attained showed a 60% gain in knowledge during the six week intervention.

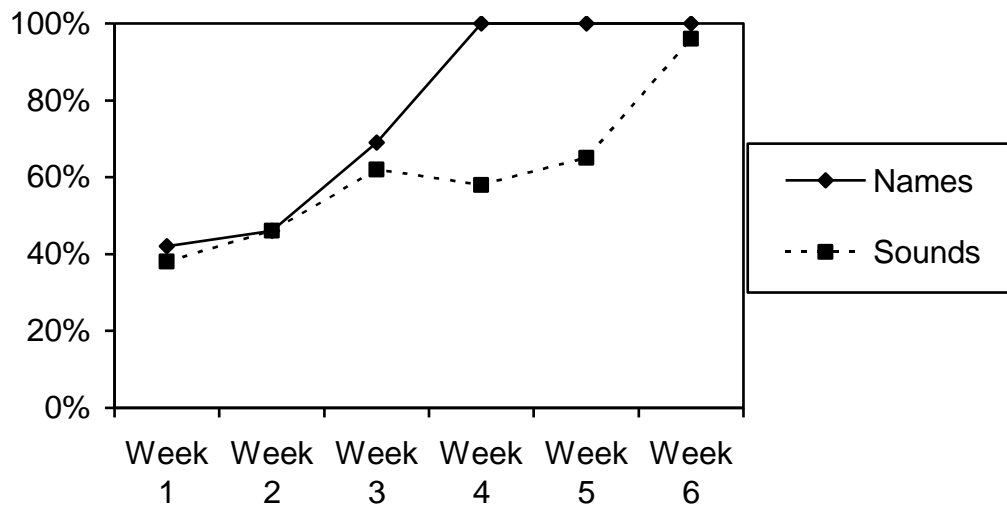


Figure 3. Participant 3 Weekly Academic Growth

Participant 4 was a male Kindergarten student. Participant 4 knew only two letter names, which were the letter “a” and “o”, according to the fall DIBELS assessment. During the first two weeks of the intervention, Participant 1 made academic growth in the letter names and sounds. The participant started with a 25% knowledge and only increased to 30% by the end of week three. However, Participant 4 made academic gains beginning with week four in the acquisition of letter sounds. The student progressed to 50% knowledge of the letter names and sounds. By the time week six came, Participant 4 tested at 60% in letter name awareness and 57% in letter sound knowledge. The data attained showed a 30% gain in knowledge during the six week intervention.

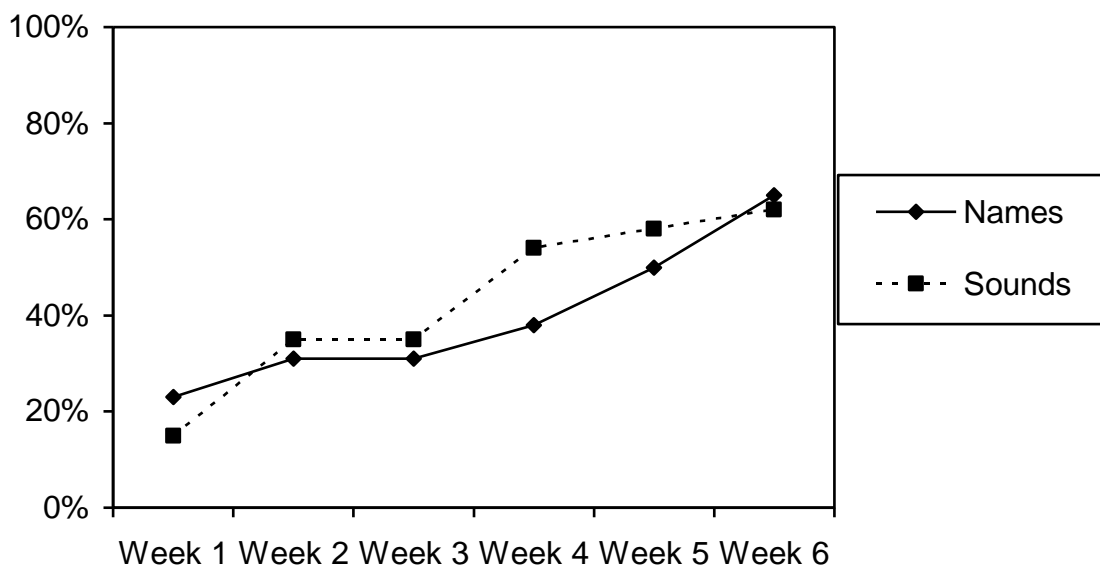


Figure 4. Participant 4 Weekly Academic Growth

Participant 5 was a male Kindergarten student. Participant 5 knew seven letter names, according to the fall DIBELS assessment. During the first two weeks of the intervention, Participant 5 made little academic growth in the letter name and sounds. The participant began with a 20% knowledge and only increased to 25% by the end of week three. However, Participant 5 made slight academic gains beginning with week four. The student progressed to knowing 55% of the letter names and 60% of the letter sounds by the end of week six. The data attained showed a 40% gain in knowledge during the six week intervention.

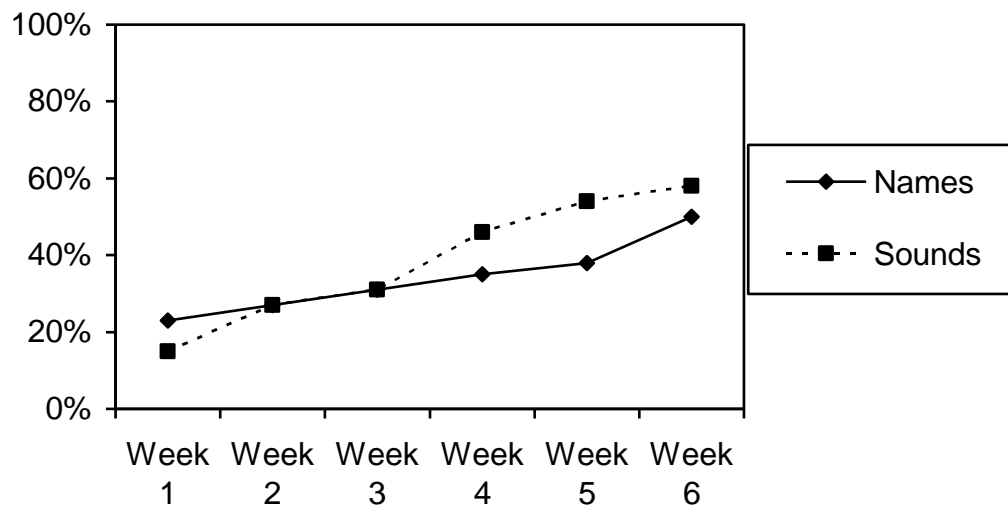


Figure 5. Participant 5 Weekly Academic Growth

Participant 6 was a female Kindergarten student. Participant 6 knew eleven letter names, according to the fall DIBELS assessment. During the first three weeks of the intervention, Participant 6 made huge academic growth in their letter sound knowledge. Participant 6 tested at 55% on the letter sounds category in week four. This student progressed slowly at first with the letter names. By the time week six came, Participant 6 tested at 96% in letter sound awareness which gained a 80% increase in six weeks. The data attained showed a 45% gain in letter name knowledge during the six week intervention.

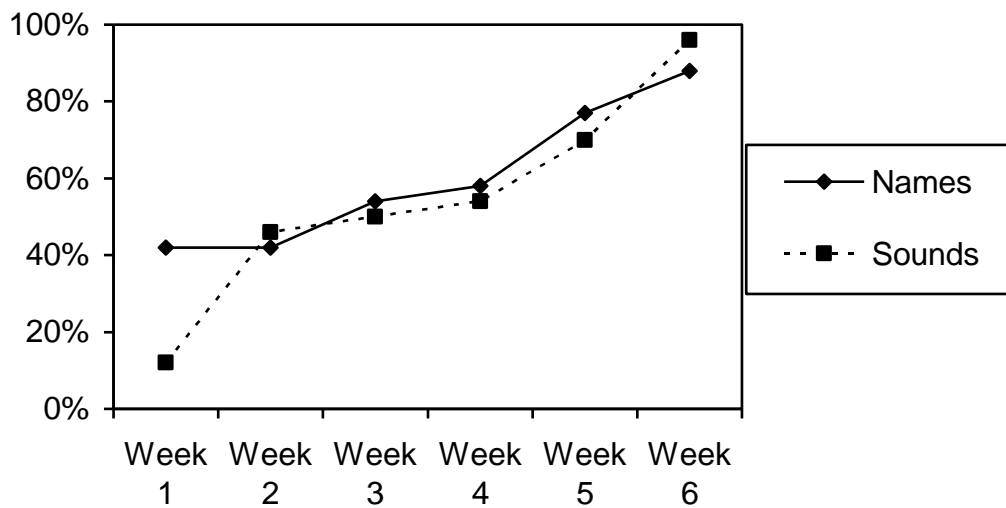


Figure 6. Participant 6 Weekly Academic Gains

## Findings

The researcher determined there were significant improvements in the participant's letter name and letter sound knowledge after the six week intervention. According to the analysis Participant 1 progressed to 54% in letter name awareness and 58% in letter sound knowledge. The data attained showed a 40% gain in knowledge during the six week.

Participant 2 progressed to 100% accuracy of the letter names by the end of the six week intervention. Participant 2 tested at 65% accuracy of the letter sounds by the end of week six. The data attained showed a 60% increase in letter names and 40% gain in the letter sounds during the six week intervention. P

Participant 3 tested at 100% accuracy in both the letter name and letter sounds assessment. The data attained showed a 60% gain in knowledge during the six week intervention.

Participant 4 produced academic growth in the letter names and sounds. The participant progressed to 60% in letter name awareness and 57% in letter sound knowledge. The data attained showed a 30% gain in knowledge during the six week intervention.

Participant 5 progressed to a 55% accuracy of the letter names and 60% accuracy of the letter sounds by the end of week six. The data attained showed a 40% gain in knowledge during the six week intervention. Finally, Participant 6 letter sound knowledge. Participant 6 tested at 96% in letter sound awareness

which showed a 80% increase during the six week intervention. The data attained showed a 45% gain in letter name knowledge during the six week intervention.

### Discussion

The results of the study were consistent with the researcher's expectations. The results of the study were also consistent with the research found by Hall, in 2006, stating that one of the most important changes in education this decade was the realization that early identification and intervention prevented reading problems for many students. The research results were consistent with Hall's (2006) view that the most effective way to help students was to provide an intervention in small groups of three to five students who were working on the same specific skill.

The researcher recognized that there were aspects of the study which could have negatively effected the results. According to Gay, Mills & Airasain there were limitations and interpretation to be considered when conducting a study. Studies cannot answer all questions, cannot capture all information about the participants and the environment, and measuring instruments always had some degree of error, (Gay, Mills, & Airasain, 2009, pp. 5).

It was the expectation of the researcher to find that the participants in the six week intervention would lead to higher academic growth in the knowledge of letter names and sounds. The evidence gathered during the course of this study supported the researcher's expectations. The results suggested that a small group



intervention that focused on phonics and phonemic awareness was consistent with the researcher's expectation.

### Summary

After the results came back from the fall, 2009, DIBELS assessment the researcher knew it was imperative to begin an intervention for the students that tested in the intensive category. The researcher found that six of the twenty ELL kindergarteners at White Center Heights Elementary School (WCHES) were not effectively learning the letter names and sounds in order to produce a foundation for reading. Therefore, the researcher and the student teacher implemented a daily ten-minute intervention for six weeks to teach the struggling students the letter names and letter sounds. The researcher designed a descriptive study with the purpose of the project to determine if the learning of phonics and phonemic awareness could be improved by providing an intervention to the at risk students. The results of the study were consistent with the researcher's expectations. Students who received an intense reading intervention for six weeks increased their knowledge in letter names and sounds and made a significant improvement in their scores on the teacher created and administered weekly assessments.

## CHAPTER 5

### Summary, Conclusions and Recommendations

#### Introduction

The purpose of the project was to determine if the learning of phonics and phonemic awareness could be improved by providing a six week intervention to the struggling students. The researcher knew it was essential to have a solid foundation in phonics and phonemic awareness in order to begin the reading process. The researcher was concerned for the students who lacked their letter name and sound knowledge. The significance of the project was deemed important, because the researcher understood the need for a solid phonological basis in reading for each Kindergarten student. The researcher wanted to prove that one of the most important changes in education this decade was the realization that early identification and intervention helped prevent reading problems for many students. Schools needed to provide intervention instruction immediately after a student was identified as at risk, even if the student had not begun formal reading instruction. According to the authors of the book, Phonemic Awareness in Young Children (Adams, Foorman, Lundberg & Beeler, 1998, pp. 1- 2) research clearly showed that phonemic awareness can be developed through instruction; furthermore, that doing so would significantly accelerate the child's reading and writing achievement. Research found that with early intervention, many students were able to avoid the major problems in the future with reading

difficulty. The researcher understood that if the students did not learn basic phonics and phonemic awareness skills, the students could not learn to read. Therefore the researcher began a six week intervention program, which reinforced the teaching of phonics and phonemic awareness to the struggling students.

The participants were students who classified as intensive on their DIBELS test and the kindergarten assessment were chosen to participate in the intervention. Six students were selected to participate in the weekly intervention, four students were male and two students were female. The selected six students were separated into two groups of three. The student teacher provided an intervention with each group first thing in the morning for approximately ten minutes each.

### Summary

The project was a descriptive study, which was designed to determine if at risk students would make academic gains, which resulted from a six week intervention. In Chapter 1 the researcher that determined six students struggled with phonics and phonemic awareness according to the DIBELS assessment given in September, 2009. In Chapter 2 the researcher reviewed educational literature which clarified the importance of mastering phonics and phonological awareness in reading. Chapter 3 provided the methodology of the descriptive study and reported the data obtained when the researcher provided a daily ten-minute intervention for six weeks. The researcher then determined if the intervention

made a significant difference in the student's knowledge of phonics and phonemic awareness by giving weekly assessments to each student participant. The significance of the project was deemed important, because the researcher understood the need for a solid phonological basis in reading for each Kindergarten student. In Chapter 4 the researcher analyzed the data and reported the results of the study. The researcher reported that the descriptive study proved the author's hypothesis. The researcher hypothesized that students who received an intense reading intervention for six weeks made significant improvement in their weekly scores on the teacher created assessment.

### Conclusions

The results from this research determined that a daily intervention would help students who were struggling with phonics and phonemic awareness. The participants in this research study made a significant increase in their knowledge of the letter names and letter sounds due to the daily intervention.

The descriptive study presented here was a first step in understanding how to best intervene for Kindergarten students who struggled with phonics and phonemic awareness. The desired results of the intervention were realized. According to the analysis of the data retrieved from the students' weekly assessments, the researcher determined that students who received an intense reading intervention for six weeks made significant academic growth and improvement in the weekly scores on the teacher created assessment.

## Recommendations

Based on the conclusions of this study, the researcher would like to recommend that educators should provide a meaningful intervention to their struggling students. The researcher found that the students in the study did significantly benefit from the daily ten-minute intervention that was provided to them.

It will be recommended to the principal and colleagues at White Center Heights Elementary School to continue all small group intervention programs into the next school year and beyond. The Kindergarten students gained more reading academic growth due to the small group intervention. The self-efficacy of the students was evident from their engagement during the six weeks as well as from their increased scores on the weekly assessments.

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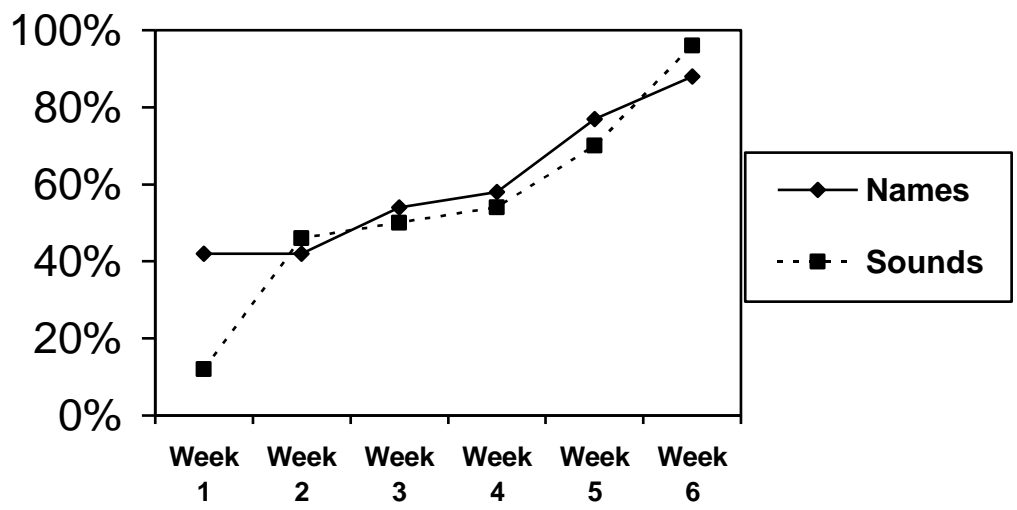


Figure 6. Participant Six Weekly Academic Growth