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A STUDY OF THE EFFECTIVENESS OF THE WILSON FOUNDATIONS
PROGRAM WHEN APPLIED TO A GROUP OF CHILDREN WITH MILD TO
MODERATE SPECIAL NEEDS

By
Annette J. Sessa

A Thesis

Submitted in partial fulfillment of the requirements of the Master of Arts Degree
Of
The Graduate School
At
Rowan University
May 5, 2003

Approved by _____
Professor

Date Approved May 12, 2003

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ABSTRACT

Annette J Sessa

A STUDY OF THE EFFECTIVENESS OF THE WILSON FOUNDATIONS PROGRAM WHEN APPLIED TO A GROUP OF CHILDREN WITH MILD TO MODERATE SPECIAL NEEDS

2002-2003

Dr. Stanley Urban

Master of Arts in Learning Disabilities

A program that has addressed the needs of students with mild to moderate disabilities is the Wilson Reading Foundations Program for K-3. The targeted goal of the Wilson Language Training is to help students become fluent, accurate readers. It is a phonology, phonics, spelling program that includes the basic components of the Wilson Reading System where emphasis is placed on systematic phonics and the study of word structure. Instruction is cumulative and scaffolds all presented skills.

The Wilson Foundations Program was administered to a small group of four children in grade 2, with mild to moderate learning disabilities. This independent study investigated the claims, by asking the questions, "What is the effectiveness of the Wilson Foundations Program when applied to a group of children with mild to moderate special needs," "What progress has each child made on each of the seven units assessed as contained in Level 1 of the Wilson's Foundations Program?" Assessments have been used to monitor students' progress throughout the study. The students were pre tested in September of 2002, prior to any instruction of the Wilson Foundations Program. Additional assessments consisted of seven unit test scores after children have completed each unit of study consecutively throughout this study. The final post assessments were administered at the end of March, 2003. Significantly, 100% of the second grade sample succeeded at increasing their knowledge in phonemic awareness and spelling.

MINI-ABSTRACT

Annette J Sessa

**A STUDY OF THE EFFECTIVENESS OF THE WILSON FOUNDATIONS PROGRAM
WHEN APPLIED TO A GROUP OF CHILDREN WITH MILD TO MODERATE
SPECIAL NEEDS**

2002-2003

Dr. Stanley Urban

Master of Arts in Learning Disabilities

The purpose of this study was to evaluate the effectiveness of the Wilson Foundations Program. Careful assessment of student growth showed that 100% of the second grade sample increased their spelling and phonemic awareness skills.

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CHAPTER I

INTRODUCTION

BACKGROUND

Research in the last decade has revealed that phonemic awareness plays a critical role in children's reading acquisition. In fact, it is considered a necessary insight for independence in reading. Phonemic Awareness refers to an awareness of sounds in spoken, not written, language. It is recognizing that speech is made up of a series of individual sounds that can be manipulated. The ability to use phonics as a means to decode printed words is most likely dependent upon a child's understanding that speech is made up of individual sounds, or the child's phonemic awareness. Phonemic awareness can be difficult for young children because it demands a shift in attention from the content of speech to the form of speech. It requires individuals to attend to the sounds of speech separate from their meanings. Research states that phonemic awareness is the most important core and causal factor separating normal and disabled readers (Adams, 1990). It has been identified as the most potent predictor of success in learning to read. It is more highly related to reading than tests of general intelligence, reading readiness, and listening comprehension (Stanovich, 1986,1994). Phonemic awareness is central in learning to read and spell (Ehri, 1984).

A growing number of studies have demonstrated that children can be provided with specific experiences that build their phonemic awareness. Furthermore, we have found not only that these experiences lead to improved phonemic awareness but that they in turn, have a powerful influence on success in learning to read and spell. Children who

have been trained in phonemic awareness outperform control groups on subsequent measures of both reading and spelling. In recent studies, there is a growing consensus among researchers that children should be provided with considerable linguistic stimulation beyond speaking and listening. Any activity that focuses children's attention on language and encourages experimentation with or manipulation of language may be useful in developing phonemic awareness.

One of the programs that has addressed these needs of specific students with mild to moderate disabilities is the Wilson Reading Foundations Program for K-3. The targeted goal of the Wilson Language training is to help students become fluent, accurate readers. Wilson Reading Foundations for K-3 is a phonology, phonics, spelling program that is complementary to most language arts programs and includes the basic components of the Wilson Reading System. Rather than replace core curriculum, Foundations combines its research validated program design with installed core programs to meet federal standards and serve the needs of children. Teachers incorporate a 30 - 40 minute daily Foundations lesson into their language arts classroom instruction. Furthermore, targeted small group intervention is available in phonology/phonics, fluency, and/or vocabulary as needed. Material kits are provided for each grade level and are now available for Kindergarten and Level 1 as of August, 2002. Kits for levels 2 and 3 will be available in 2003. Foundations is recommended as part of a total literacy solution, including a literature-based language arts program and a Wilson Reading System intervention and intensive program. In this program, emphasis is placed on systematic phonics and the study of word structure. All skills are taught explicitly and systematically. Instruction is cumulative and scaffolds all presented skills. The teacher models tasks and use "Echo", the owl puppet, directing students to orally repeat sounds, words and sentences.

Assessments are used to monitor students throughout the program. Individualized and multi sensory instruction extensive practice and multiple opportunities are provided for skills application. The Home Support Packets encourage parental involvement. The level 1 of Foundations provides teachers with the skills and tools necessary to present a structured phonics program for both reading and spelling. Students learn total word structure through a carefully sequenced progression. Phonemic awareness training continues through level 1. The program includes: letter-sound correspondences, such as: consonants, digraphs, as well as short and long vowel sounds. Word structure is emphasized, including: compound words, base words and suffixes as well as two syllable words with short vowels. Vocabulary development, fluency, and sentence structure for writing is also taught systematically throughout the program. Progress monitoring is essential in this study to determine student success. Students' progress is monitored with weekly check of skills for mastery, unit tests and fluency charting.

THEORY

According to Wilson Language Basics theory, the goal to reading is comprehension. In order to achieve this, a reader must be fluent. Fluency allows a student to focus on meaning rather than word identification. Therefore, readers must recognize words automatically, with little effort. In order to help students achieve this goal, the fluency kit was designed in this program to promote strong fluency. The purpose of the Fluency Kit is to help students develop sound and word accuracy as well as prosody, which is phrasing and expression. The Kit includes recording charts and fluency drills fro units 2-14. It also includes four Books To Remember by Laura Appleton. These can be enjoyed by students after completing unit 8 in this program. The fluency drills include: sound charts, word charts, containing real words, nonsense (pseudo) words as well as trick

(sight) words, phrases and stories. To practice fluency, students need to work with words written at an independent level (95% decodable text). The controlled words, phrases and stories are all 95-100% decodable for the designated unit. Students are working toward a 60 word per minute score, which is desirable at the end of level 1. Since most will not achieve this until the end of that level, students need to know that they are not expected to get all of the items on a drill in the allotted time. The goal is to simply better their individual score to promote an increase in fluency

RESEARCH QUESTIONS

The overall research question to be answered in the present study follows here:

General Research Question: What is the effectiveness of the Wilson Foundations Program when applied to a group of children with mild to moderate special needs?

In order to answer this general question, data will be gathered to answer the following specific question:

Research Question 1: What progress has each child made on each of the seven units assessed as contained in Level 1 of the Wilson's Foundations Program?

NEED FOR THE STUDY

The need for this study is to find a program or methods that work while being incorporated into a balanced literacy approach. Wilson Reading Foundations for K-3 is recommended as part of a total literacy solution, including a literature-based language arts program. Rather than replace core curriculum, Foundations combines its research validated program design with installed core programs to meet federal standards and serve the needs of children. Teachers incorporate a 30-minute daily Foundations lesson into language arts instruction. Furthermore, targeted small group intervention is available in phonology/phonics, fluency, and/or vocabulary as needed. An independent and

objective study needs to be conducted to verify results of students' individual progress while determining its effectiveness.

VALUE OF THE STUDY

This study would be valuable for school districts considering implementing the Wilson Reading Foundations Program with their students. Using Foundations, K-3, teachers can easily assess students in seeing who needs more intensified direct instruction. It is extremely beneficial while being used in a small group setting as well. Once again, Wilson Foundations provides a systematic practical approach within a framework. Children receive multisensory direct instruction, while then being able to apply the skills learned when reading in context. This can only be possible while utilizing a balanced literacy approach and providing various activities to improve overall language skills and development.

The complete program has extended research and much evidence of effectiveness. The Wilson Reading Program is one of the three exemplary programs for students with language-based learning disabilities. The Wilson Reading System has been published for more than 10 years and has been successfully implemented in school districts and adult education settings across the country. It was published in 1988 and is designed for students who have not yet mastered reading and spelling. It is intended to help meet the needs of students with average cognitive ability that lack an internalized phonological coding system.

DEFINITIONS

1. *Phonemic Awareness* - Phonemes are the smallest unit of sound. Phonemic awareness is the ability of a person to identify and manipulate phonemes in the spoken word. It is part of the broad term of phonological awareness (National Reading Panel, 1999).

2. *Specific Learning Disability* - corresponds to perceptually impaired and means a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. It is characterized by a severe discrepancy between the student's current achievement and intellectual ability in one or more of the following areas: Basic reading skills; Reading comprehension; Oral expression; Listening comprehension; Mathematical computation; Mathematical reasoning; and Written expression. The term does not apply to students who have learning problems that are primarily the result of visual, hearing, or motor disabilities, general cognitive deficits, emotional disturbance or environmental, cultural or economic disadvantage. The district shall adopt procedures that utilize a statistical formula and criteria for determining severe discrepancy. Evaluation shall include assessment of current academic achievement and intellectual ability. (IDEA & NJAC 6A:14)

LIMITATIONS

The students, who have participated in the Wilson Foundations program, were those who have been classified as special education students. The program was offered in September, 2002 through Spring, 2003. Due to the small number of four students in the resource center pull out program, the results should be generalized with caution. Furthermore, the period for program implementation will be September, 2002 to March, 2003 and represents a short training period.

This is a quasi-experimental study in that random selection of subjects did not occur and random assignment to a treatment or control group would be ethically unacceptable. History and maturation as possible confounding variables cannot be ruled out.

CHAPTER II

REVIEW OF THE LITERATURE

Research tells us that before a child will benefit from reading instruction, one of the key skills that must be in place is the awareness of the speech sounds in words, which is known as phonemic awareness. Recent sophisticated studies with kindergarten children and older poor readers have shown that phonological skill which is the ability to identify, sequence, substitute, and move around the sounds in words, is the single best prediction of a child's ability to learn to read easily.

According to the National Reading Panel, (2000) results of the meta-analysis showed that teaching phonemic awareness to children is clearly effective. It improves their ability to manipulate phonemes in speech. This skill transfers and helps them learn to read and spell. Phonemic Awareness training benefits not only word reading but also reading comprehension. Phonemic Awareness training also contributes to children's ability to read and spell for months, if not years, after the training has ended. Research also states that the effects of Phonemic Awareness training are enhanced when children are taught how to apply Phonemic Awareness skills to reading and writing tasks. Teaching Phonemic Awareness helps many different students learn to read, including preschoolers, kindergartners, and first graders who are just starting to learn to read. This includes beginners who are low in Phonemic Awareness and are at risk for developing reading problems in the future. This also includes older disabled readers who have already developed reading problems, children from various SES levels, students who are taught to read in English, as well as students taught to read in other alphabetic languages.

Research from The National Reading Panel also states that teaching phonemic awareness helps preschoolers, kindergartners, and first graders learn to spell. It helps children at risk for future reading problems, low as well as middle-to-high SES children, students learning to spell in English as well as students learning in other languages.

Research from the International Reading Association has demonstrated that phonemic awareness is a very important ability. There is substantial evidence that phonemic awareness is strongly related to success in reading and spelling acquisition. In a review of the research, Stanovich (1986) concluded that phonemic awareness is a more potent predictor of reading achievement than nonverbal intelligence, vocabulary, and listening comprehension, and that it often correlates more highly with reading acquisition than tests of general intelligence or reading readiness. A growing number of studies indicate that phonemic awareness is not simply a strong predictor, but that it is a necessary prerequisite for success in learning to read.

The hypothesis that reading acquisition and phonemic awareness are related has been repeatedly supported by research. There is substantial evidence that at least some level of phonemic awareness is a prerequisite for learning to read. In order to benefit from formal reading instruction, youngsters must have a certain level of phonemic awareness. Reading instruction, in turn, heightens their awareness of language. Phonemic awareness is both a prerequisite for and a consequence of learning to read. Several studies have addressed that phonemic awareness can be taught and studies have demonstrated that children can be successfully trained in phonemic awareness. All children were pretested on a series of phonemic awareness tasks at the beginning of their kindergarten year. Post tests given at the end of the year revealed that there was a substantial training effect: Children who had received phonemic awareness training progressed in phonemic

awareness significantly more than children who had not received such training. Furthermore, this effect was maintained over time. When children were tested again several months later at the beginning of first grade, the trained children still performed significantly better than control children. Those children who had received phonemic awareness training in kindergarten significantly outperformed those who had not participated in training. In addition, the trained children were superior spellers. The authors concluded that awareness of phonemes had a powerful influence on eventual success in learning to read and spell. It is important that phonemic awareness instruction be viewed by educators as only one part of a much broader literacy program. Phonemic awareness development is not meaningful in and of itself. It is important only in the context of comprehensive reading instruction. Griffith and Olson (1992) argued that phonemic awareness activities would not be helpful unless they could be placed in a context of real reading and writing. Phonemic awareness instruction should be a thoughtful, conscious component of early literacy programs. Through research, there is a concern that in some classrooms, phonemic awareness instruction will replace other crucial areas of instruction. Phonemic awareness supports reading development only if it is part of a broader, balanced literacy program that includes-among other things-development of students' vocabulary, syntax, comprehension of strategic reading abilities, decoding strategies and writing across all content areas.

COMPONENTS OF A READING PROGRAM

The Reading First initiative of the No Child Left Behind Act of 2001 identifies five essential components of effective reading instruction. The scientifically research-based and proven Wilson Reading System has incorporated these components since its development in 1988 and now the same explicit and systematic instruction is available to various K-3 classrooms through Wilson Foundations. We have a converging body of evidence that tells us that children need instruction in five areas: phonemic awareness, phonics, vocabulary development, reading fluency and text comprehension. Phonemic awareness, which provides the foundation of a reading program, has been identified as the ability to hear individual sounds in a word (National Reading Panel, 2000). Students identify and isolate sounds of spoken words, segment phonemes in words, and blend phonemes into words. Phoneme substitution, addition and manipulation activities are done with letter cards and tiles to assist with cognitive manipulation. The Wilson tapping procedure for both blending and segmenting of phonemes is used. Make It Fun and Word Play activities provide additional practice in phonological and phonemic awareness. Once phonemic awareness has been comprehended, phonics instruction, another critical component of reading can occur. Phonics instruction is sound-to-symbol and symbol-to-sound correspondence. This is incorporated into each lesson of the Wilson Foundations Program during letter formation / sky writing, sound drill, and echo-find sounds lesson activities. Readers are directly and systematically taught word structure during Word of the Day and Word Play lesson activities. Students apply skills to decode and spell unfamiliar words. Vocabulary encompasses the words that you need to know in order to communicate. Students have an oral vocabulary, which refers to the words that they use

in speaking or that they recognize when they hear them. They also have a reading vocabulary, which refers to the words that they recognize in print. According to research, vocabulary needs to be taught both directly and indirectly. In Wilson Foundations, targeted vocabulary is introduced and practiced during Word of the Day and Word Play activities for phonetically regular words. Students learn a maximum number of three high-frequency irregular words per week during the Trick Word lesson activity. Trick words are words that you cannot tap or sound out. They are high-frequency words. Students develop a personal resource dictionary in their Student Notebooks. Students study these high-frequency phonetically regular and irregular words for reading and writing with repeated and multiple exposures.

Fluency is the next essential component of effective reading instruction. According to research, fluency is the most neglected skill or element of early reading instruction. When we say fluency, what we mean is “rapid accurate reading with expression.” When children can read rapidly and accurately, they can attend to meaning of the text. One of the main goals of the Wilson Foundations program is to make children as fluent as possible so that much of their capacity can be put toward the ability to comprehend. Research tells us that repeated monitored oral reading practice could improve students’ fluency. A notable strategy for developing fluency is to provide opportunities to read the same passage orally, which need to be reasonably easy for children. They can then be at their independent reading level, so they can read with about 95 percent accuracy. The Wilson Foundations program provides consistent opportunities to practice reading orally. Fluency kits are used consistently in this program to monitor students’ progress and rate of reading. The fluency kits include repeated reading practice using controlled text (95-100% decodable). There are controlled sound drills, word lists, phrases and stories for

each unit of study. Teachers model fluency and students learn prosody with a specific phrasing technique. Timed drills assess fluency achievement (60 words/minute by end of grade 1).

Comprehension is the fifth essential component of effective reading instruction. Research states that there are strategies to help improve comprehension: teaching children to use graphic and semantic organizers, being able to generate questions about what was read, answering questions about the information read and being able to recognize story structure. In the Wilson Foundations Program, decodable text is used during story time. Guidance is provided on visualization, incorporating pictures for retelling stories, applying speaking and listening skills, and explaining narrative story structure. Providing a balanced literacy program, where children can apply skills learned by reading literature-based reading material, at the appropriate instructional level, is crucial for students to learn to use the skills that they have been taught.

This is the philosophy of the Wilson Foundations Program. Wilson Foundations is recommended as part of a total literacy solution, including a literature-based language arts program and a Wilson Reading System intensive program. Wilson Foundations provides research-validated materials and strategies to help districts develop a comprehensive reading program.

SUCCESS OF USING WILSON

Recent research shows that up to twenty percent of the student population requires a direct phonological method of reading instruction due to a weakness in phonological awareness. The at-risk children can learn to read but require a program that incorporates five elements identified by Dr. Rebecca Felton at Bowman-Gray School of Medicine. The elements identified are: provide direct teaching of the alphabetic code, provide direct instruction in language analysis, teach reading and spelling in coordination, include intensive instruction and teach for automaticity. Wilson incorporates all five elements mentioned. Wilson directly teaches the alphabetic code and phonology. Wilson teaches total word structure for reading and spelling concurrently. Whatever is taught for decoding is also taught for encoding within the same lesson. Lessons are sequenced and cumulative and must be scheduled regularly. Each concept is taught to automaticity using multisensory techniques to achieve mastery. Wilson uses controlled text for reading and spelling, and it presents the structure of the English language in a logical sequence. Wilson builds in constant repetition-weaving past and present concepts. It uses questioning techniques throughout each lesson for both reinforcement and error correction and it uses diagnostic teaching procedures with each lesson, within controlled text presentation.

COMPONENTS OF EFFECTIVE REMEDIATION

If instruction is balanced and theoretically sound, many children can achieve significant success. Lovett and her associates (Lovett, Borden, Lacerenza, Benson, and Brackstone, 1994) obtained strong gains in 35 hours of intensive instruction with nine-year-old children who were taught sound segmentation and blending for word decoding. Alexander, Anderson, Heilman, Voeller and Torgesen (1991) gave 65 hours of intensive

teaching to ten year old children with severe phonologically based learning disabilities and raised their standard score in phonic word attack from 77 to 98 (average). The approach emphasized direct, intensive, in-depth training in phonology and decoding.

Torgesen and his coworkers (1997) reporting the results of two years of an intervention study with poor readers who have weak phonological abilities, have demonstrated the power of intensive intervention in reversing the course of reading failure. Children already classified as having learning disabilities (n=31), average age ten years, entered the study with very poor phonological skills and reading skills at least 1.5 standard deviations below average. The progress of two groups was compared, when each group received teaching for two hours per day, five days a week, for eight weeks. The first group was taught with the Lindamood's Auditory Discrimination in Depth (Lindamood & Lindamood, 1984) approach, which stimulates phonological awareness by helping children discover the manner in which sounds are articulated. The program also provides direct instruction in sound-symbol correspondence and the application of those correspondences to reading and spelling. The second intensive program was an embedded phonics approach which also taught decoding but which emphasized the use of context clues to support phonic strategies, the recognition of sight words, the discovery of sounds in known words, and fluent reading of text. Both groups made dramatic gains in phonic word attack and real word reading, scoring at or close to grade level in these skills.

THE WILSON READING SYSTEM AND EFFECTIVENESS THROUGH RESEARCH

The Wilson Reading System (Wilson, 1996) reviewed in Clark and Uhry (1995) is another that was designed specifically for older students with significant reading problems. Based on Orton-Gillingham instructional principles, it is designed to teach

language structure and basic reading using multisensory, cumulative, sequential techniques. Sound associations are taught to automaticity and applied in reading decodable text and there is a constant review and practice in skills previously taught. The predictable patterns of language in general are emphasized from the beginning so that students can rely on their own knowledge to decipher unknown words in text. Although the Wilson Reading System has not been formally tested in a highly controlled study, the authors have collected their own data that reflects very strong gains by students in the program. Data was gathered on 220 student-teacher pairs, including 92 students in grades 3-4 and 128 in grades 5-12. All students progressed poorly in other programs and were at least two years behind grade level. In one year, the average gain in these students was 4.5 grade levels in word attack and 1.5 grade levels in reading comprehension using the Woodcock Reading Mastery Test.

Middle grade children who cannot read or write well are not beyond help.

Intensive, well-designed intervention that addresses the core linguistic deficits underlying reading failure has been shown to help most children, even if their early instruction was inadequate. Many children with phonological deficits can respond to daily one-to-one instruction that is sustained for long enough periods. The instruction must be comprehensive, continuous, and inclusive of all the major components of reading (phoneme awareness, phonic decoding, fluency in text reading, vocabulary, comprehension, spelling, writing and related language concepts) to have the best chance of success. But the success of even the best-designed program is highly dependent on the knowledge and the skill of the teacher, who must be well trained in a specific approach and supported in its implementation (Moats & Lyon, 1996).

The aim of the next study was to determine whether special education pullout programs with teachers trained in the multisensory instruction of phonological awareness and word structure yield significant growth in reading and spelling skills. The present study examined the effectiveness of multisensory structured language teaching in public school settings using the Wilson Reading System. Data from pre and posttests of 220 language learning disabled students in grades 3-12 were analyzed. The results demonstrate significant student growth in spelling, word attack, reading comprehension and spelling. These results demonstrate the effectiveness of the Wilson Reading System with learning disabled students in public schools.

Pre and post testing scores revealed significant gains for all the Word Attack and Passage Comprehension comparisons (Woodcock Reading Mastery Tests) as well as the spelling comparisons (Wilson Reading System Test). Similar tests applied to the Pre and Posttest Grade Level scores revealed significant gains for all the Total Reading comparisons (Woodcock Reading Mastery Tests). Significant gains in Word Attack were obtained. The average gain was 4.6 grade levels. The average word attack gain of 4.6 grade levels indicates that the Wilson Reading System greatly improved students' decoding abilities. Significant gains in Passage Comprehension were obtained; the average gain was 1.6 grade levels. Although the emphasis in instruction was primarily on word attack, students still gained more than one and one-half years in comprehension. Significant gains in the total reading scores resulted from the significant gains in word

attack and comprehension. The average gain was 1.9 grade levels in total reading. These gains are significant since these students had made little or no gain in reading with previous intervention methods. Significant gains in spelling were also obtained; the average gain in raw score was 10. Moreover, errors on the spelling posttest were much closer to the accurate spelling. Students not only increased their spelling accuracy, but showed significant growth in their understanding of basic written word structures as well.

This study indicates that although previous pullout instruction had not been successful, The Wilson Reading System pullout instruction was successful. Students' improvements in decoding ability, passage comprehension, total reading, and spelling were statistically significant after instruction using the Wilson Reading System. The results show that students who receive instruction from teachers trained in the multisensory teaching of phonological awareness and word structure develop basic reading and spelling skills. Further, the results indicate students with reading disabilities can make significant reading and spelling gains in a one-year-pull-out program. Teachers also indicated students gained confidence and self-esteem as their basic reading skills improved throughout the year.

CHAPTER III

DESIGN OF THE STUDY

POPULATION

The study was conducted in the Washington Township Public School System. Washington Township is a suburban township located in Gloucester County, New Jersey and is approximately 15 miles from Philadelphia, Pennsylvania. Once a rural area, much of the land has been sold to developers and the population continues to increase.

The township has eleven total schools in the district. These schools contain students in pre-school through twelfth grade with a total enrollment of 9,612 students. The township houses an early childhood center containing pre-school and kindergarten classes, six elementary schools, three middle schools and one large high school core building consisting of students in grades nine through twelve. There are approximately 3800 students enrolled in the six elementary schools, 2700 enrolled in the three middle schools, and 2700 students attending the high school. The average student teacher ratio is 24:1. This study was conducted at Birches Elementary School, which has an enrollment of 653 students.

SAMPLE

The Wilson Foundations Program was provided to four students in the special education program in grade two. They received individualized instruction in a pullout Resource program every day during the morning for the primary subjects of reading and language arts for a period of two hours. The program lasted for six months throughout the school year, beginning September, 2002 through March, 2003. Four students, in second

grade, were chosen as subjects in this study, based on an assigned schedule to teach students who primarily manifest a Specific Learning Disability. These students individually showed many difficulties in overall reading development. These students have received replacement reading and language arts instruction provided in the resource center throughout the year. The sample consisted of two boys and two girls. Primarily, difficulties had been evident in overall reading, including: decoding/encoding skills as well as vocabulary development. One boy and one girl in the sample are classified as Communications Impaired. It was noted in both of their IEP's that phonemic awareness skills were not strongly developed by September 1, 2002, as both appeared to have difficulty manipulating phonemes in order to make new words. All of these students attend Birches Elementary School. Two boys and one girl in the sample are age seven with the final female subject becoming eight years old in September, 2002.

PROGRAM

Wilson Foundations is a phonological awareness, phonics, spelling program. The lessons focus on carefully sequenced skills that include print knowledge, alphabet awareness, phonological awareness, phonemic awareness, decoding, spelling, and vocabulary development. Critical thinking, speaking, and listening skills are practiced during story time activities. All skills are taught explicitly and systematically (cumulatively and sequentially) in 30 -40 minute daily lessons. In this Program, emphasis is placed on utilizing a balanced literacy approach, while providing various activities to improve overall language skills and development. Wilson Foundations provides a systematic practical approach within a structured framework. Children receive multisensory direct instruction, while then being able to apply the skills learned when

reading in context. This is why a balanced literacy approach is so essential. Wilson Foundations meets the requirements of the federal No Child Left Behind (NCLB) law. Wilson programs are research based and have a proven track record.

COLLECTION OF DATA

The goal of this study was to determine the effectiveness of the Wilson Foundations Program when applied to a group of children with mild to moderate learning disabilities. A second goal was to track individual progress of each subject throughout the study, while noting increases made. Results are reported in terms of age equivalence, grade equivalence and percentages, as well as standard scores.

DESIGN OF ANALYSIS OF DATA

The first assessments (September 2002) were administered in mid-September, prior to any instruction, using the Wilson Foundations Program. They are the Phonological Awareness Test and The Developmental Spelling Analysis Feature Inventory, Form A. Additional assessments were incorporated throughout the use of the Wilson Foundations Program. This consisted of seven unit tests administered after the completion of each unit. The Phonological Awareness Test and The Developmental Spelling Analysis Feature Inventory, Form B were also used for the final assessments in March, 2003.

The treatment group of four-second grade subjects participated in the Wilson Foundations Program. From September, 2002 through March, 2003, these students have received consistent, scaffolded instruction as they have made progress through Level 1 of the Foundations program. Home Support Packets were sent home to encourage parental involvement. This supplementary process was to ensure that additional practice was being reinforced and taught correctly. This program was part of a balanced literacy

program. Students read supplemental stories on their independent level using the Harcourt Reading Series. Moreover, they were given below-level readers, decodable books and other supplemental reading material that corresponded to the taught skill in the Wilson Program. Throughout this study, weekly check-ups and unit tests were completed, as well as word study and multisensory activities for reinforcement.

Gains in phonological awareness were determined by comparing pre and posttest performance for each subject. In Chapter 4, Table 1 displays subjects' pretest scores prior to any instruction. Table 2 displays each student's progress represented by unit test scores. In Table 3, students' posttest results are noted as significant gains after being instructed in the Wilson Foundations Program. Finally in Table 4, a progression summary is displayed as one can compare pre and post-testing results for this sample.

CHAPTER IV

ANALYSIS AND INTERPRETATION

INTRODUCTION

In order to answer the research questions in this study, “What is the effectiveness of the Wilson Foundations Program when applied to a group of classified second graders,” and “What increases have they made individually or specifically in tracking students’ progress,” results of the three different types of assessments have been provided. The first assessments (September, 2002 Pretests) were administered mid-September prior to any instruction of the Wilson Foundations Program. The Phonological Awareness Test was administered to the second grade subjects to measure previously learned skills. Also, a Developmental Spelling Analysis, (DSA, Form A) was given to all subjects prior to any instruction. Additional assessments were incorporated in the Wilson Foundations Program. They consisted of seven unit test scores after children have completed each unit of study consecutively throughout this study. The final assessments (March Post-Tests) were administered at the end of March.

RESULTS

The scores obtained during the September pretests are shown in Table 1 and represent the total standard score on the Phonological Awareness Test. An average score is 100 with an average range of 90-109. The second group of scores in the September pretests, represents the number of correct answers out of a possible twenty-five on the Developmental Spelling Analysis Feature Inventory, Form A. The test represented stage

II of development, called “Letter Name” spelling. Letter name features include the following: Initial and final consonants, initial consonant blends and digraphs, short vowels and final consonant blends and digraphs. There are five stages of spelling development: Stage I: Emergent or preliterate, Stage II: Letter Name, Stage III: Within Word Pattern, Stage IV: Syllable Juncture and Stage V: Derivational Constancy. A subject’s stage score of 22-25 correctly spelled words stands for secure understandings. The speller is competent and confident at this stage. A subject’s score of 12-21 means that the student is working in his/her stage of development. A score that is below 12, but with strong scores, 22-25, on the previous stage is in an Early Stage of Development.

Table 1

Standard Score (SS) Obtained by Second Graders During September Pretest, 2002

Phonological Awareness Test	Developmental Spelling Analysis (DSA) Form A- Letter Name, Stage II
Student 1 (f) total SS - 83	16/25 - LN (within this stage of dev)
Student 2 (m) total SS - 80	9/25 - LN (very early stage of dev)
Student 3 (f) total SS - 81	14/25 - LN (within this stage of dev)
Student 4 (m) total SS - 79	8/25 - LN (very early stage of dev)

(m) = male (f) = female, LN = Letter Name

Table 2

Wilson Foundations Program- Unit Test Scores (9/02 – 3/03)

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
Student 1 (f)	100%	97%	100%	99%	96%	96%	100%
Student 2 (m)	100%	99%	100%	100%	97%	100%	100%
Student 3 (f)	100%	97%	100%	99%	100%	97%	100%
Student 4 (m)	100%	97%	100%	96%	95%	96%	100%

By analyzing students' scores in Table 2, one can determine the effectiveness of the Wilson Foundations Program. All four students maintained high scores consistently throughout level 1 in all seven units of study. Individualized and multi sensory instruction and extensive practice has proven successful when applied to a group of children with mild to moderate special needs. With consistent high scores, one can conclude that the level 1 Foundations does provide teachers with the skills and tools necessary to present a structured phonics program through a carefully sequenced progression of skills.

Table 3

Standard Scores (SS) Obtained by Second Graders During March Posttest, 2003.

Phonological Awareness Test	Developmental Spelling Analysis (DSA)
	Form B - Letter Name, Stage II Form B - Within Word, Stage III
Student 1 (f) total SS - 96	24/25 – LN (secure understandings) 3/25 – WW (very early stage of dev)
Student 2 (m) total SS - 92	24/25 – LN (secure understandings) 1/25 – WW (very early stage of dev)
Student 3 (f) total SS - 92	25/25 – LN (very secure understandings) 2/25 – WW (very early stage of dev)
Student 4 (m) total SS - 91	23/25 – LN (very secure understandings) 2/25 – WW (very early stage of dev)

LN = Letter Name, WW = Within Word

Table 4

Progression Summary – Pre and Posttesting for Second Graders (9/02 – 3/03)

	PAT (9/02)	PAT (3/03)	DSA, Form A – LN (9/02)	DSA, Form B – LN (3/03)
Student 1 (f)	SS = 83	SS = 96	16/25	24/25
Student 2 (m)	SS = 80	SS = 92	9/25	24/25
Student 3 (f)	SS = 81	SS = 92	14/25	25/25
Student 4 (m)	SS = 79	SS = 91	8/25	23/25

In Table 4 above, information based on Pre and Posttesting notes that all four-second grade subjects have made progress in both assessments used, in a six month period. In the Phonological Awareness Test, all students have progressed in the average range when given the post test in March. There is an increase of 11-13 points in all of the students' standard scores. This notes progress for all students in this six month study. Students have also made notable increases in the Developmental Spelling Analysis in the six month period as well. All of the skills tested in the Spelling analysis of the "Letter Name" Inventory are emphasized in level 1 of the Wilson Foundations Program. It can be

interpreted from Table 4 that the entire sample did make educational gains and notable increases in the area of reading and spelling during the six month study. Significantly, 100% of the second grade sample succeeded at increasing their knowledge in phonemic awareness and spelling.

CHAPTER V

SUMMARY

A growing number of studies have demonstrated that children can be provided with specific experiences that build their phonemic awareness. Furthermore, research has shown that not only that these experiences lead to improved phonemic awareness but also they have a powerful influence on success in learning to read and spell. One of the programs that has addressed these needs of specific students with mild to moderate disabilities is the Wilson Reading Foundations Program for K-3. The targeted goal of the Wilson Language Training is to help students become fluent, accurate readers. Wilson Reading Foundations for K-3, is a phonology, phonics, spelling program that includes the basic components of the Wilson Reading System. In this program, emphasis is placed on systematic phonics and the study of word structure. All skills are taught explicitly and systematically. Instruction is cumulative and scaffolds all presented skills.

A recent study was conducted using the Wilson Foundations Program to a small group of four children in grade 2, with mild to moderate learning disabilities. This independent study investigated the claims, by asking the questions, “What is the effectiveness of this program when applied to a group of children with mild to moderate special needs,” and “What increases have they made individually or specifically in tracking students progress?” Assessments have been used to monitor students’ progress throughout the study. The students were pre tested in September of 2002, prior to any

instruction of the Wilson Foundations Program. The Phonological Awareness Test was administered to the second grade subjects to measure previously learned skills. Also, a Developmental Spelling Analysis was given prior to any instruction. The second assessment tracked students' progress throughout incorporating the Wilson Foundations Program. This consisted of seven unit test scores after children have completed each unit of study consecutively throughout this study. The final post assessments were administered at the end of March, 2003. Information based on Pre and Post assessment notes that all four-second-grade subjects have made progress in all assessments used, in a six-month period. In the Phonological Awareness Test, all students have progressed in the average range when given the posttest in March. There was an increase of 11-13 points in all of the student's standard scores. This notes progress for all four students in a six-month study. Students have also made notable increases in the Developmental Spelling Analysis in the six-month period as well. Based on the assessment and scores presented, it can be observed that the entire made educational gains and meaningful increases in the areas of reading and spelling during the six-month study. Significantly, 100% of the second grade sample succeeded at increasing their knowledge in phonemic awareness and spelling.

FINDINGS

There were many positive findings while using the Wilson Foundations Program. The program is very well organized and easy to administer. The kit comes with a CD Rom that has explicit modeling of key concepts and skills presented. The teacher's manual is very easy to use while containing a structured layout of lesson plans and

scaffolded instruction. There are options presented for various activities, depending on the needs of specific students. This program is a success promoter for students learning to read. There is emphasis placed on systematic phonics and the study of word structure. All skills are taught explicitly and systematically. Instruction is cumulative and scaffolds all presented skills. Assessments for each unit of instruction are used to monitor students throughout the program. Wilson Foundations provides a systematic practical approach within a structured framework. Children have enjoyed learning through multisensory direct instruction and students are beginning to apply the skills learned when reading in context. While using the program, one can see that it is practical by incorporating a daily thirty-minute Foundations lesson into language arts instruction. Since this program does not consume a large amount of time, teachers can successfully utilize a balanced literacy approach and provide various activities in order to meet the diverse needs of various students.

CONCLUSIONS

The results of this study reflect that all four-second-grade subjects who participated in the Wilson Foundations Program made educational gains and notable increases in the areas of reading and spelling during the six-month study. Significantly, 100% of the second grade sample succeeded at increasing their knowledge in phonemic awareness and spelling. However, the program was offered only during a six-month period from September, 2002 through March, 2003. This period for program implementation represents a short training period. One recommendation would be to continue instruction with these specific students using the Wilson Foundations Program through level 1. The students have now completed eight units of fourteen at level 1. It was predicted that more instruction would have been completed in the six-month study

by March, 2003. Due to days lost during the school year, some instructional time was lost and students did not complete the first ten units. It is a strong possibility that instruction will continue with the same subjects in small group instruction next year. At that time, students will complete level 1, units 11 through 14, and analysis of skill development in reading and spelling will be analyzed. This recommendation will also include these 4 subjects beginning level 2 of the Wilson Foundations Program next year by, November, 2003, while continuing individualized, small group instruction through June, 2004. At that time, the teacher will be able to measure much more consistent growth and understanding with more advancement of skills through the second level of this program. The length of the treatment time in this study should be extended to determine if progress would continue. Therefore it is strongly recommended that the four subjects continue with the same program through level 2 next year. The analysis of the results from the September 2003 pretest to the June 2004 posttest will provide a much longer period of time to evaluate the benefits of the Foundations Program.

This program has not only proven to be successful with the present four second grade subjects, but for many other students as well. Teachers in Washington Township School District have become interested in the new Wilson Foundations Program. There has been professional development training provided to teachers this year in order to use Foundations with their own students at the elementary level, K-3. Another advantage of this program is that it is designed for the regular classroom as well. Teachers can identify students that need more intensive instruction as they present skills in the larger classroom setting. Along with strong interest and professional development training, teachers have ordered materials/kits of level 1 of Wilson Foundations so that they can implement this program to improve overall reading and spelling skills with their students as well.

Regular classroom teachers, special education teachers as well as reading teachers of Basic Skills Instruction classes are now using this program in their classes. More professional development training will be provided to teachers this summer district wide.

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