The effectiveness of the Wilson Reading Program in improving spelling and decoding skills of a selected sample of special needs children

Helen E. Rosica

Rowan University

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THE EFFECTIVENESS OF THE WILSON READING PROGRAM
IN IMPROVING SPELLING AND DECODING SKILLS
OF A SELECTED SAMPLE OF SPECIAL
NEEDS CHILDREN

by
Helen E. Rosica

A Thesis
Submitted in partial fulfillment of the requirements of the
Mater of Arts Degree
of
The Graduate School
at
Rowan University
Spring 2005

Approved by
Professor
Date Approved May 9, 2005
2005 Helen E. Rosica
ABSTRACT

Helen E. Rosica
THE EFFECTIVENESS OF THE WILSON READING PROGRAM
IN IMPROVING SPELLING AND DECODING SKILLS OF
A SELECTED SAMPLE OF SPECIAL NEEDS CHILDREN
2004-2005
Dr. Stanley Urban
Master of Arts in Learning Disabilities

The Wilson Reading Program was designed by Barbara Wilson and published in 1988 for the first time. It was originally designed for students diagnosed with dyslexia, but its focus has been expanded to include struggling readers and spellers who are below their classmates. Wilson is based on the Orton-Gillingham multisensory principal. It is well organized and systematic.

The Wilson Reading Program was administered to a small group of two students, aged nine to eleven who receive all their academic instruction in a self-contained special education classroom. These students have similar intelligence levels, and a similar degree of difficulty with reading and spelling. Three other students in the self-contained classroom served as a control group.

Pretests and posttests were administered to all five students in order to determine their levels of decoding and encoding prior to administration of the Wilson Program. The two students in the study group increased their decoding and encoding significantly; while the control group improved only to a level that would be consistent with their instruction in a self-contained classroom.
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CHAPTER I
INTRODUCTION

Background

Since there are no research based methods that have been sufficiently validated at this time, controversy among educational theorists continues over the best methods for reading instruction. Phonemic awareness (PA) skills have received much attention as representing a crucial component of reading ability. “Correlational studies have identified phonemic awareness and letter knowledge as the two best school-entry predictors of how well children will learn to read during their first 2 years in school. There is evidence to support the potential instructional importance of teaching PA to children.” (National Reading Panel, 2000). Phonemic awareness can be taught and learned, and children benefit from direct instruction in phonemic awareness and explicit systematic phonics. “In fact, almost 50% of children will fail to learn to read from instructional strategies that assume the ability to intuit the alphabetic principle.” (Berg and Stegelman, 2003). Because PA is at the center of learning to read words, students who are starting to learn to read need to learn how to pull out the sounds in words that are spoken, and they need to be able to connect them to the letters in the way words are spelled. (Castiglioni-Spalten, Ehri, and Linnea, 2003). Research has shown that students who are taught to divide words into phonemes do better in learning to decode and encode than students who are not taught this skill or are given other types of instruction. (Castiglioni-Spalten, Ehri, and Linnea, 2003).

Oftentimes it is difficult for children to learn how to divide words into phonemes
because "speech is seamless" and "sound is ephemeral and disappears immediately." (Castiglioni-Spalten, Ehri and Linnea, 2003). It is thought that a phonological representation of words also helps students to remember how words are spelled. Providing phonological awareness instruction may help this process. Beginning decoders/encoders may read and spell words more effectively when the words can be joined with phonic cues than when spellings have to be memorized. (Castiglione Spalten, Ehri, and Linnea, 2003).

According to the National Reading Panel, "systematic phonics instruction is significantly more effective than non-phonics instruction in helping to prevent reading difficulties among at risk students and in helping to remediate reading difficulties in disabled readers." (National Reading Panel, 2000). It should not be the only reading instruction, since students need to apply the instruction to authentic literature and a broad literacy program including spelling and written language, but it is a necessary component to fluent reading.

If a child is weak in distinguishing phonemes in words, he will have difficulty in word reading. In fact, this weakness is the most common cause of difficulties in the development of reading fluency. It has been shown over and over that systematic phonics instruction and phoneme-grapheme relationships drastically reduce the amount of reading problems and special education referrals. (Berg and Stegelman, 2003)

Theory

According to the Wilson Language web site (www.Wilsonlanguage.com) millions
of students in middle and high schools struggle to read every day. Many students score below the basic level in reading skills, and among those struggling readers, there are also 27 million adults. There are many causes for these difficulties, but a common factor is that they “have never been properly assessed. The majority of these people are subject to a core deficit at the most basic level of language skill: that of phonologic coding. They have never acquired what so many of us take for granted—an internalized ability to analyze the structure of words in English and apply their understanding of that structure when reading and spelling.” (www.wilsonlanguage.com/mainPage.html)

The Wilson program is a multisensory approach to phonics instruction that is research-based. It directly teaches the structure of words so students can master decoding and encoding. The program is presented logically and systematically in a manageable and organized format. “The basic purpose of the Wilson Reading System is to teach students fluent decoding and encoding skills to the level of mastery. From the beginning steps of the program, it also includes sight word instruction, fluency, vocabulary, oral expressive language development and comprehension. (www.wilsonlanguage.com).

The program requires the student and teacher to interact throughout the entire lesson and the lessons go from easy to more challenging.

Wilson is designed for students who have difficulty with reading and spelling. It is not recommended for children before the upper elementary grades. The program is designed specifically for students with language based learning disabilities, but can be used for anyone who struggles with decoding and encoding. It is most appropriate for students with beginning literacy skills through grade six. (www.wilsonlanguage.com).
Need for the Study

This study will evaluate the effects of the Wilson Reading Program on the phonemic awareness development of a small group of special education students in the Haddon Township, NJ public schools. Many other methods of instruction have been utilized, such as a basal series, SRA Direct Instruction and the literacy collaborative, in an attempt to improve the reading fluency, comprehension, decoding and encoding of these students. None of these programs have been completely successful, but nor have any of those programs been as systematic and structured as the Wilson Reading program. If the results validate the success of Wilson Training, and the students make acceptable progress, the school district should consider adopting the program more readily.

Purpose of the Study

The purpose of this study is to evaluate the effectiveness of the Wilson Reading Program in improving the decoding, encoding, and fluency of a sample of special education students. If the results validate the success of Wilson training, and the students make acceptable progress, the school district should consider adopting the program more readily.
Research Question

In order to accomplish the overall purpose of this study, the following general research questions will be answered. What is the effectiveness of the Wilson Reading Program in improving the spelling and decoding skills of two nine-eleven year olds who qualify for Special Education services?

Limitations

There are several limitations which need to be considered when interpreting and generalizing the results of this study. The study will be conducted in a self-contained special education classroom that contains 14 third through fifth graders. The sample size is small and was not selected randomly; instead, it represents a convenience group. The characteristics of the children in the study may not be representative of children learning to read through systematic phonics instruction. In addition to sample limitations, the study will be one that is relatively short in duration beginning in October and ending in March.

Definitions

The following terms have a specialized definition within the context of this study:

*Phonemes*- the smallest units constituting spoken language. English consists of about 41 phonemes.

*Graphemes*- units of written language that represent phonemes in the spellings of words. The diagraphs sh, th, ch, and so forth are two graphemes that represent one phoneme.

*Phonemic Awareness*- Sensitivity to, or explicit awareness of, the phonological structure of words in one's language. It includes the ability to identify, think about, and manipulate the individual sounds in words.
Phonics Instruction-This is a method of instruction that teaches students how to use grapheme-phoneme correspondences to decode or spell words. Phonemic awareness instruction does not qualify as phonics instruction when it teaches children to manipulate phonemes in speech, but it does qualify when it teaches children to segment or blend phonemes with letters.
Chapter II
REVIEW OF LITERATURE

The federal No Child Left Behind Act (NCLB) has placed a new emphasis on learning to read. This act has mandated research into what works and what does not. Suddenly states need to prove that what they are doing works to help children learn to read. If they can not prove this, they risk losing millions of dollars in federal aid.

The National Institute of Child Health and Human Development (NICHD) within the National Institutes of Health (NIH) contributed to a large body of research to determine which literacy experiences make children successful readers. They conducted remarkably extensive studies into this area. The NICHD discovered scientific evidence about learning to read which includes the following:

1) Although the eyes make visual contact with the printed word, the critical work involves the sounds (phonemes) of language. Many NICHD studies show that a reader's ability to remember, imitate, recall, manipulate (pull sounds apart and put them back together again), recode (switch between sound, visual, and semantic codes), and articulate sounds is essential to early reading.

2) The ability to process sounds that are heard (called phonological processing) consistently differentiates good readers and poor readers. This ability is not dependent on intelligence, SES, or parent education. Good phonological processing is necessary in order to decode and read new words quickly and accurately.

3) The most reliable indicator of difficulties in comprehending what is read is the ability to read words quickly and accurately (called word recognition.)
4) Reading is indeed learned and therefore, must be taught, supported and sustained. Reading does not come naturally, as does speech, and relies heavily on how we hear and manipulate sounds even before we see printed words.

5) Reading the English language requires understanding the alphabetic writing system—understanding that the alphabetic print must be converted into sounds and meaningful messages.

6) Effective classroom instruction in the early grades by well prepared teachers is the most powerful method for preventing reading and learning problems. When teaching youngsters who have a difficult time learning to read, the research indicates that explicit, systematic instruction is most effective in teaching reading. This instruction should:

   a. teach phonemic awareness...at an early age (kindergarten).
   b. teach the common sound-spelling relationships in words;
   c. teach children how to say the sounds in the words;
   d. use text that is composed of words that use sound-spelling correspondences that children have learned;
   e. use interesting stories to develop vocabulary and language comprehension; and
   f. the most effective classroom method for early reading instruction involves a combination of explicit instruction in word recognition skills and reading comprehension strategies with opportunities to apply and practice these skills in literature.

   (Lyon and Kameenui, 2004)

The reading of words occurs in one of four ways. Words are predicted, sounded out, chunked, or recognized immediately. Predicting involves using context plus some decoding to read a word. Sounding out involves using letters one by one and blending them together into a word. As readers progress, they group sounds into units. Words that are recognized immediately have been seen so often that the reader knows them without effort. (Gunning, 2000).

In learning to read, children go through the prephonemic stage. They recognize
words through logos or other distinctive features. Being able to read a sign for a favorite
toy store or product at a young age, even as young as three, falls into this category. The
children are beginning to understand that letters make up words, but they are not truly
reading the words. They can not read them in any other context. They are associating
“nonphonemic characteristics” of words. Teachers frequently take advantage of this
knowledge to help students remember how to recognize and spell certain words.
(Gunning, 2000).

As students become more aware of the fact that letters represent sounds, they
move into the early alphabetic stage of learning to read. In this stage, students begin to
use letter-sound relationships to read words. They generally only use the first or first and
last consonants to decode words. At the early stage children do not have knowledge of
vowel sounds. At the advanced alphabetic stage, students begin to process all letters in
the words. As they learn to apply their growing knowledge of letter-sound relationships,
their reading may be slow and effortful. Focusing on using their newly learned decoding
skills, students cautiously read word by word. The problem with this stage is that too
much emphasis is placed on reading each word accurately so that comprehension suffers.
(Gunning, 2000).

In the orthographic stage, students process longer and more sophisticated units.
For instance, instead of processing a word such as *hat* as *h-a-t*, they may divide it into
two units: *h-*at. They begin to process different spellings of sounds, such as *igh* and final
*e*. At this stage decoding still may occur letter by letter, but it is done so rapidly and
usually subconsciously that the reader does not realize that it is being done. Over time
words become sight words easily and virtually all words are read immediately.

This theory of reading stages suggests that nearly all the words we acquire are learned through phonics. It suggests that all words (except words like *of* and *the*) should be taught through a phonics approach rather than through an approach based upon memory. Virtually all words have some sort of regularity, and teaching links between sounds and letters will help fix words in memory. Instruction should be geared toward the student's current stage of development. (Gunning, 2000).

Phonics instruction must be meaningful and it must teach skills necessary for decoding words. It is important that the student be taught skills he/she does not know, rather than grade level skills that the student may have already mastered.

There are two main approaches to teaching phonics: analytic and synthetic. In the analytic approach, consonants are generally not isolated but are taught within the context of a whole word. In the synthetic approach, which is sometimes called explicit phonics, words are decoded sound by sound, and both consonants and vowel sounds are pronounced in isolation. This approach is very direct, but it is necessary to be careful and not distort the sound of the consonants. It is difficult to pronounce a consonant without a vowel. The */k*/ sound becomes *kuh* if the instructor/student is not careful. Usually a combination of synthetic/analytic phonics is the most successful approach to teaching. (Gunning, 2000).

Readers and writers who struggle, do best when given a systematic program in word analysis skills. Although most students will grasp word analysis skills regardless of
the approach used to teach them, students who have difficulty learning need instruction that is direct and clear. Often these students have gaps in their skills that need to be filled in before they can read and spell fluently. (Gunning, 2000).

The Wilson Reading Program

Wilson Reading is a program designed by Barbara Wilson and published in 1988 for the first time. (www.wilsonlanguage.com). It was originally designed for students diagnosed with dyslexia, but its focus has been expanded to include struggling readers and spellers who are below their classmates. Level A of the program uses vocabulary appropriate for younger students and ESL students. Level B uses vocabulary designed for use with older students and adults.

Wilson is based on the Orton-Gillingham multisensory principle. It is well organized and systematic. It is organized around a 12 step program that is cumulative and incremental. Steps one through six provide students with the basics for decoding and encoding. Steps seven through twelve focus more on word analysis, vocabulary development and comprehension. In this program, students are provided with a plan in which they learn to hear sounds; manipulate color-coded sounds; syllable and word cards; performing finger-tapping exercises to make a multi-sensory connection; writing dictated words and sentences; reading aloud from controlled vocabulary texts; and listening comprehension. The students are provided with direct reinforcement and do not move on until they have achieved mastery of each level.
The program teaches six common syllable types. Sounds are taught as they relate to the types. The first two steps emphasize skills in phonemic segmentation and blending. By using sound cards, the student learns a "sound tapping" procedure where he learns to segment sounds within words. For example, in teaching the word *cot*, the teacher would lay out three cards. One would have a *c*, one an *o* and one a *t*. The student is taught to say the sound of each letter while tapping a different finger against his thumb. While saying the *c* sound, he would tap his index finger against his thumb. While saying the *o* sound he would tap his middle finger to his thumb, and while saying the *t* sound he would tap his ring finger to his thumb. Finally he would say the whole word together while dragging his thumb against all three fingers. (www.fcrr.org). This tapping helps to reinforce the sound/symbol connection in the brain.

The Wilson Reading System provides extensive instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension. The sound tapping system helps students learn to distinguish between phonemes in a word. The instruction is developmentally appropriate. Instruction begins with words with three sounds, including a short vowel. Students then progress to words with four, and five sounds. Eventually, students are taught how to break words into syllables. Students are also taught developmentally appropriate sight words at each level of instruction. Students must demonstrate thorough mastery of skills before moving on to the next step. (www.fcrr.org).

The Wilson Reading System is designed to supplement other reading programs. Students learn phoneme segmentation, and with it, decoding and encoding, but there is a limited amount of reading of actual text. Each lesson has a story with controlled
vocabulary so that the student may practice reading words of the type they have been introduced to. This should not be mistaken for reading instruction, however. Students need to have their eyes and mind on print in order to become more fluent, independent readers. Students need to be exposed to stories that do not have controlled vocabulary. They also need to read authentic literature, in order to develop an appreciation for reading.

Research

The Wilson Language web site claims that the Wilson Reading Program is research-based, with over ten years of data collected and analyzed from school districts implementing the program. They also state that criterion based assessment built into the program adequately measures the student’s progress (www.Wilsonlanguage.com).

According to the Florida Center for Reading Research, "there is a beginning level of research support for the Wilson Reading System". (www.fcrr.org). Dr. Frank Wood of Wake Forest University analyzed data compiled by the Wilson Language Training. Data was collected from 374 students between 1999 and 2001. The Woodcock Reading Mastery Test was administered as a pre and post test. According to findings,

1) the pre/post test differences were statistically significant on the following subtest and cluster scores: word identification, word attack, passage comprehension, basic skills cluster, and total reading cluster.
2) Students with low IQ benefited from remediation as well as did higher IQ students.
3) The most severe group saw greater improvement in their Total Reading Cluster that did the least severe group; and
4) Students at all grade levels from grade 3 through grade 8 benefited from remediation.
The major limitation of these findings, of course, is that the tests were administered by those who taught the children and thus may be inflated by unconscious supports provided by the teachers. The study also did not employ a control or comparison group, thus it is not possible to attribute the gains directly to the Wilson instruction. A strength of the results, however, is that the data were reported as standard scores, which only improve if the student actually makes reading gains that are greater than those expected during the period of instruction. (www.fcrr.org).

The Florida Center for Reading Research concludes that the Wilson Reading Program can be used to help students who are struggling readers and spellers “catch up” to their peers. They caution, however, that the research designs for this program were “very weak” so the support they give the program is tentative. The preliminary evidence seems to indicate that the Wilson Reading Program is effective, and aligned with current reading research. (www.fcrr.org).

The Southwest Educational Development Laboratory also indicates that the Wilson Reading System has potential as a program for struggling readers. Although it cautions that the Wilson Program is not a complete literacy program and should not be used as such. This group of researchers state that teachers need to supplement Wilson for comprehension and writing. They have found that Wilson is effective for basic decoding, fluent decoding and linguistic knowledge (www.sedl.org).

Summary

Despite some weaknesses in the research methodology, the Wilson Reading Program appears to be a research based intervention. It has some
independent, scientifically based data to support its use. Many educators give
their support for the program, so it has anecdotal support also. Teachers can use
the program with some degree of confidence that it will increase phonemic
awareness in their students.
Chapter III

DESIGN OF THE STUDY

Population

The study was conducted in the Haddon Township Public School System. Haddon Township is a suburban township located in Camden County, New Jersey and is approximately 10 miles from Philadelphia, Pennsylvania. The township population has remained fairly consistent over the years since it is an older suburb of Philadelphia. The town is separated into five distinct areas, each with a zip code from the neighboring town. The town does not have its own zip code and property values are influenced by the zip code that the neighborhood has. For example, the Van Sciver School, where this study was conducted, resides in a neighborhood with a zip code from the neighboring town of Haddonfield. Haddonfield is a prestigious town, so property values in this neighborhood are higher than that of the neighborhood immediately to the west, which shares its zip code with Collingswood.

The township has a total of seven schools. The schools contain students in pre-K through twelfth grade. There are five elementary schools that house students in pre-K through fifth. The citizens of the town overwhelmingly support the concept of a “neighborhood school” so some of the schools are very small and old, but the township supports keeping them open. There is one middle school, which opened in the fall of 2003. It houses students from grades 6-8. It is adjacent to the high school which houses students in grades 9-12.
The study was conducted at the Van Sciver School which has an enrollment of approximately 480 students. This school houses the self-contained special education classrooms for the district’s elementary schools. The other four elementary schools offer pull-out resource services, but not the next step on the continuum of services which is the self-contained classroom. Van Sciver has three self-contained classes: one that houses students in Kindergarten and first grade, one has students in second and third grade, and one has students in third, fourth and fifth grade.

Sample

The Wilson Reading Program was provided to two students in a self-contained classroom made up of third through fifth graders. The two students were chosen at random from a group of five students with similar IQ scores, phonemic awareness scores, and reading levels. The other three students in this group will serve as a control group. The two students received instruction in the Wilson Reading Program three days per week for 45 minutes each day. The program lasted for six months, from October 1, 2004 to March 24, 2005.

One student is an eleven year old fifth grader in his first year in a self-contained classroom. The other is a ten year old fourth grader who has been in a self-contained classroom for three years. Both students are classified with a Specific Learning Disability, and both manifest many difficulties in overall reading development. Difficulties have been evident in both children in overall reading, including decoding/encoding skills as well as vocabulary development.
Program

The Wilson Reading Program is a phonological awareness, phonics, and spelling program. The lessons focus on carefully sequenced skills that include print knowledge, alphabet awareness, phonological awareness decoding, spelling, and vocabulary development. Critical thinking, speaking, and listening skills are practiced during other language arts periods. All skills are taught explicitly and systematically in 45 minute daily lessons. In this program, emphasis is placed on decoding, encoding and fluency. Children receive multisensory direct instruction, while then being able to apply the skills learned when reading in context. This is why it is necessary to do another form of reading instruction. Wilson programs have an extensive history of successful implementation and there is considerable research evidence to support their effectiveness.

Collection of Data

The goal of this study was to determine the effectiveness of the Wilson Reading 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 equivalents and percentages of correct word reading and letter/sound relationships as well as standard scores and percentiles where applicable.
Design of Analysis of Data

The baseline assessments were obtained in September 2004 prior to any instruction using the Wilson Reading Program. The assessment instruments used were the Phonological Awareness Test and the Wilson Assessment of Decoding and Encoding. The same two tests were administered in March of 2005 to measure treatment effects.

The treatment group of two students participated in the Wilson Reading Program. They also received instruction in the Scholastic Reading Program and a form of the Literacy Collaborative. The control group consisted of three students who were also tested using the Phonological Awareness Test and the Wilson Assessment of Decoding and Encoding. They received instruction in the Scholastic Reading Program and the form of the Literacy Collaborative. They did not receive any instruction in the Wilson Reading Program.

Gains in phonological awareness were determined by comparing pretest and posttest performance for each subject. In Chapter 4, Table 1 displays subjects’ pretest scores on the Wilson Assessment of Decoding and Encoding (WADE) prior to any instruction. Table 2 displays each student’s pretest scores on The Phonological Awareness Test. In Table 3, students’ posttest results are noted as significant gains after being instructed in the Wilson Reading Program. Table 4 shows the posttest scores using The Phonological Awareness Test. Tables 5 and 6 show the progression summary so that one can compare pretest and posttesting results for this sample.
Chapter IV

ANALYSIS AND INTERPRETATION

Introduction

In order to answer the research question “What is the effectiveness of the Wilson Reading Program in improving the spelling and decoding skills of two nine to eleven year olds who qualify for Special Education services?” the results of the two different assessments have been provided. The first assessments (September, 2004 WADE and The Phonological Awareness Test) were administered mid-September prior to any instruction of the Wilson Reading Program. The WADE and The Phonological Awareness Test were administered to both the study group and the control group to measure previously learned skills. The final assessments were administered at the end of March, 2005.

Results

The scores obtained during the September pretest on the WADE are shown in Table 1 and represent the percentages of correct word reading and letter/sound relationships. The first two students reported are the study group students, and the next three scores represent the control group. The test is broken down into letter/sound knowledge, word reading and spelling. Letter/sound knowledge is broken down into Consonants, Diagraphs/Triagraphs, Vowels, Additional sounds, and Welded sounds. The scores are reported as Total Sounds only, without further break down. The word reading section is
broken down into Real words, Nonsense words, and Sight words. Again, only the score as Total Words is reported here. The spelling section is broken down into Words, Sentences, and Sight Words. Only total spelling is reported here.

**Table 1 Pretest scores on the WADE**

<table>
<thead>
<tr>
<th></th>
<th>Sounds</th>
<th>Reading</th>
<th>Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student 1</strong></td>
<td>25%</td>
<td>23%</td>
<td>2%</td>
</tr>
<tr>
<td>Female age 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student 2</strong></td>
<td>33%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Male age 11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student 3</strong></td>
<td>9%</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Male age 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student 4</strong></td>
<td>40%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Female age 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student 5</strong></td>
<td>20%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Female age 9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the purposes of this report, only the scores in Rhyming, Segmentation, Isolation, Deletion, and Substitution will be reported. The other areas tested using this assessment measure are: Blending, Graphemes, and Decoding. These scores are similar to those obtained on the WADE. The students, numbered 1 through 5 are the same as in the above table. For the purposes of this assessment, scores are reported as Standard Scores. The statistically average student would achieve a Standard Score of 100.
Table 2 Pretest scores on The Phonological Awareness Test

<table>
<thead>
<tr>
<th></th>
<th>Rhyming</th>
<th>Segmentation</th>
<th>Isolation</th>
<th>Deletion</th>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1</td>
<td>89</td>
<td>95</td>
<td>40</td>
<td>98</td>
<td>76</td>
</tr>
<tr>
<td># 2</td>
<td>91</td>
<td>100</td>
<td>75</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>#3</td>
<td>75</td>
<td>84</td>
<td>55</td>
<td>76</td>
<td>55</td>
</tr>
<tr>
<td>#4</td>
<td>99</td>
<td>96</td>
<td>66</td>
<td>74</td>
<td>85</td>
</tr>
<tr>
<td>#5</td>
<td>90</td>
<td>94</td>
<td>50</td>
<td>93</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 3 Posttest Results using the WADE March, 2005

<table>
<thead>
<tr>
<th></th>
<th>Sounds</th>
<th>Reading</th>
<th>Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>85%</td>
<td>67%</td>
<td>38%</td>
</tr>
<tr>
<td>Student 2</td>
<td>91%</td>
<td>86%</td>
<td>50%</td>
</tr>
<tr>
<td>Student 3</td>
<td>11%</td>
<td>33%</td>
<td>9%</td>
</tr>
<tr>
<td>Student 4</td>
<td>40%</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>Student 5</td>
<td>22%</td>
<td>23%</td>
<td>18%</td>
</tr>
</tbody>
</table>

As illustrated above, the first two students, who were the study group, made large gains in their reading of sounds, their word reading, and their spelling. The other three students, the control group, only made slight gains, what one would be expected to make over the course of six months in a self-contained special education classroom.
Table 4: Posttest Results using The Phonological Awareness Test March, 2005

<table>
<thead>
<tr>
<th></th>
<th>Rhyming</th>
<th>Segmentation</th>
<th>Isolation</th>
<th>Deletion</th>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>103</td>
<td>110</td>
<td>60</td>
<td>100</td>
<td>86</td>
</tr>
<tr>
<td>#2</td>
<td>100</td>
<td>105</td>
<td>79</td>
<td>86</td>
<td>90</td>
</tr>
<tr>
<td>#3</td>
<td>76</td>
<td>89</td>
<td>54</td>
<td>79</td>
<td>59</td>
</tr>
<tr>
<td>#4</td>
<td>100</td>
<td>99</td>
<td>68</td>
<td>77</td>
<td>88</td>
</tr>
<tr>
<td>#5</td>
<td>97</td>
<td>97</td>
<td>54</td>
<td>92</td>
<td>76</td>
</tr>
</tbody>
</table>

These results also show an increase in each area tested for those in the study group. The results are not as dramatic as the ones achieved by the WADE, however. This could best be explained by the nature of the assessments. The Test of Phonological Awareness is a standardized measure that is not tied into any phonics program. The WADE is an assessment that is used to test the skills that are presented in the Wilson Reading Program. It is expected, then, that a student would perform better on the WADE after being trained using the Wilson Reading Program.
Table 5: Percent Change using the WADE scores

<table>
<thead>
<tr>
<th></th>
<th>Sounds</th>
<th>Reading</th>
<th>Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>+60%</td>
<td>+44%</td>
<td>+36%</td>
</tr>
<tr>
<td>Student 2</td>
<td>+58%</td>
<td>+46%</td>
<td>+40%</td>
</tr>
<tr>
<td>Student 3</td>
<td>+2%</td>
<td>+6%</td>
<td>+1%</td>
</tr>
<tr>
<td>Student 4</td>
<td>+0</td>
<td>+2%</td>
<td>+4%</td>
</tr>
<tr>
<td>Student 5</td>
<td>+2%</td>
<td>-2%</td>
<td>+3%</td>
</tr>
</tbody>
</table>

Table 6: Std. Score change using The Test of Phonological Awareness Scores

<table>
<thead>
<tr>
<th></th>
<th>Rhyming</th>
<th>Segmentation</th>
<th>Isolation</th>
<th>Deletion</th>
<th>Substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>+4</td>
<td>+15</td>
<td>+20</td>
<td>+2</td>
<td>+10</td>
</tr>
<tr>
<td>#2</td>
<td>+9</td>
<td>+5</td>
<td>+4</td>
<td>+6</td>
<td>+10</td>
</tr>
<tr>
<td>#3</td>
<td>+1</td>
<td>+5</td>
<td>-1</td>
<td>+3</td>
<td>+4</td>
</tr>
<tr>
<td>#4</td>
<td>+1</td>
<td>+3</td>
<td>+2</td>
<td>+3</td>
<td>+3</td>
</tr>
<tr>
<td>#5</td>
<td>+7</td>
<td>+3</td>
<td>+4</td>
<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>

As previously noted, the students in the study group made significant gains in each area tested during the six months of instruction in the Wilson Reading Program. There has been an increase of 4 to 20 points in all of the students’ standard scored using The Phonological Awareness Test. This notes progress for both students in this six month study. It can be interpreted from Table 5 and Table 6 that the sample did make
educational gains and notable increases in the area of reading and spelling during the six month study. It is significant that these self-contained special education students who have not made significant progress in reading in their school careers have done so in six months using this reading program.
Chapter V

SUMMARY

A growing number of studies illustrate the instructional importance of teaching Phonemic Awareness to children. It can be taught and learned, and children benefit from direct instruction in phonemic awareness and explicit systematic phonics. One program that delivers systemic phonics instruction is the Wilson Reading Program. Wilson is a multi-sensory approach to phonics instruction that is research based. It directly teaches the structure of words so students can master decoding and encoding. Wilson is a program designed for students who have difficulty with reading and spelling. The Wilson program is presented logically and systematically in a manageable and organized format. The program requires the student and teacher to interact throughout the entire lesson, and the lessons go from easy to more challenging.

A recent study was conducted using the Wilson Reading Program with two students in a self-contained classroom in Haddon Township, New Jersey. The two students represent the study group in a class of third through fifth graders. Three other students with similar intelligence levels and learning disabilities were used as a random control group. This independent study investigated the claims of the Wilson Reading Program by asking the question, “What is the effectiveness of the Wilson Reading Program in improving the spelling and decoding skills of two nine to eleven year olds who qualify for Special Education services?” Assessments have been used to test students pretest and posttest levels in several areas necessary for decoding and encoding.
The students were pretested in September of 2004, before any instruction in the Wilson Reading Program. The students were all given The Phonological Awareness Test and the Wilson Assessment of Decoding and Encoding (WADE) prior to any intervention. The study group was given instruction in the Wilson Reading Program at least three 45 minute periods per week in addition to reading instruction in the SRA Decoding Program, Scholastic Reading Program, and a form of the Literacy Collaborative. The control group was given instruction in the SRA Decoding Program, Scholastic Reading Program, and a form of the Literacy Collaborative, but not the Wilson Reading Program.

The students in the study group and the control group were given the same assessments in March, 2005. Information based on Pretest and Posttest assessment notes that both study group subjects made significant progress in all assessments used. Based on the assessment and scores presented, it can be said that the study group students made educational gains and meaningful increases in the areas of reading and spelling during the six-month study.

Findings

There were many positive findings while using the Wilson Reading Program. The program is well organized and easy to administer. The kit comes with an instructor's manual that gives specific instruction, often even giving a script for the teacher to use for each step of the lesson. The teacher's manual is easy to use, and there are occasional options for different activities depending on the students' needs.

The Wilson Reading Program is based on the Orton-Gillingham multisensory
principle. It is well organized and systemic. It is organized around a 12 step program that is cumulative and incremental. In this program, students are provided with a plan in which they learn to hear sounds; manipulate color-coded sounds; syllable and word cards; performing finger-tapping exercises to make a multi-sensory connection; writing dictated words and sentences, reading aloud from controlled vocabulary texts, and listening comprehension. The students are provided with direct reinforcement and do not move on until they have achieved mastery of each level. The students in the study group felt comfortable with the program. They felt that they were learning and their confidence in all areas of language arts increased. Having a key word or an explanation for a sound helped them decode longer words without hesitation.

Conclusions

The results of this study reflect that both students in the study group who participated in the Wilson Reading Program made educational gains and notable increases in the areas of reading and spelling. However, the program was offered only during a six-month period from October 1, 2005, until March 25, 2005. This period for program implementation represents a short time period. One recommendation would be to continue instruction with these specific students using the Wilson Reading Program until, at least, level 7. The students have completed through level 5. It will be possible to continue instruction of these two students during the 2005-2006 school year, but they will be in different schools, so their instruction will need to continue separately. One student
will move on to the middle school, while the other will remain in the elementary school. It is recommended that these two students continue in the program, and that instruction should last from September until June to maximize progress.

This program has not only proven to be successful with the present students, but for many other students as well. Teachers who have tried many other methods of instruction have turned to Wilson, and found that it helps improve students reading. It is a program that is difficult to administer in a large classroom. Since it requires such teacher interaction for at least 45 minutes, it is best used in a self-contained classroom or a resource center. It is an ideal program for a reading specialist to administer one on one. Due to the success of the students in this study, the Haddon Township school district should consider having more of its teachers trained in the implementation of the program.
REFERENCES


