

Running Head: SIPPS Reading Program

DIFFERENCES IN STUDENT READING SCORES USING SIPPS READING
PROGRAM

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Abstract

The purpose of this study was to determine a reading program that will help students become successful readers. The question to be addressed was can the reading program SIPPS improve reading scores of all students? The study performed determined if the SIPPS reading program had a significant impact on student performance based on GMRT scores. A study was conducted between a group of 2nd graders from the 2012-2013 school year and a group of 2nd graders from the 2013-2014 school year. The 2012-2013 group was not instructed using the SIPPS program and the 2013-2014 group was instructed using the SIPPS program. In comparing the student groups overall GMRT scores as well as their Word Decoding GMRT scores, it was found that there was a significant difference in student scores. The group that received SIPPS instruction outperformed their peer group that did not receive SIPPS instruction. Educators can use this study to inform their decisions in whether or not to implement SIPPS or a program that has similar components as SIPPS.

Introduction

Background, Issues and Concerns

The reason for the following study is the desire to improve all students' ability to read on grade level. In order to improve students' reading ability when they are reading below grade level, teachers must provide interventions that work effectively to close the achievement gap. While there are many different programs available to assist educators in teaching students how to read, the district from this study chose to purchase a program called Systematic Instruction in Phonological Awareness, Phonics, and Sight Words (SIPPS). This study is to find out if the SIPPS program will improve student reading scores.

Learning a new type of curriculum can be difficult for teachers, especially when adequate training has not been provided. In its first year of availability for implementation, teachers were concerned about starting this new program and felt as though they didn't really know how the program worked and how they were supposed to instruct students. The option was given to teachers if they wanted to implement SIPPS or keep using what they had used in the past. Several teachers thought the previous phonics program, Animated Literacy, is what they should continue to use rather than SIPPS.

Another issue with the district starting to implement this new program is that not all the teachers had all the materials they needed in order to fully implement the program the way it is intended. This caused many teachers to wait to implement the program when they received the proper materials.

Practice under Investigation

The practice under investigation is to determine whether or not the SIPPS program is an effective instructional tool to help students read. Will using SIPPS help close the achievement gap between students reading below grade level and students reading on grade level?

School Policy to be Informed by Study

The goal of every educator is to help students succeed and prepare them for their future. In order for students to be successful and prepared for the future, they must be able to read. If the SIPPS program is shown to be an effective form of instruction to help students read, then information from the study could be shared with other educators. This could also help create teacher buy-in if teachers from the school and/or district knew that a teacher within the district used the program and collected data that proved the program was effective. The school and/or district could create a policy about having every teacher use the program with their students.

Conceptual Underpinning

Every student should have the opportunity to learn to read. Children learn in different ways and some pick things up easier than others. If a child is having difficulty learning how to read, then educators must step up to provide more intense instruction to help the child learn. In theory, explicit instruction will increase student performance. The question is what type of instruction will produce the most achievement? SIPPS instructional materials offer a systemic approach to phoneme awareness, phonics, and sight words that help students gain reading fluency and comprehension. According to the National Reading Panel, research studies have shown that systematic phonics instruction

enhances students' success in learning to read. The components of SIPPS, with their systematic approach, will increase students' reading performance.

Statement of the Problem

The problem is to determine a reading program that will help students become successful readers.

Purpose of the Study

The purpose of the study is to determine if the reading program SIPPS can improve reading scores of all students.

Research Question

RQ#1: Is there a significant difference in overall student reading scores of students who are instructed with the reading program SIPPS compared to those students who are not instructed using SIPPS?

RQ#2: Is there a significant difference in student reading scores, specifically in the area of word decoding ability, of students who are instructed with the reading program SIPPS compared to those students who are not instructed using SIPPS?

Null Hypothesis

There is no difference in student overall reading scores of students who are instructed with SIPPS and those who are not instructed with SIPPS.

There is no difference in student word decoding scores of students who are instructed with SIPPS and those who are not instructed with SIPPS.

Anticipated Benefits of the Study

The results of this study will inform teachers about the effectiveness of the new district reading program SIPPS.

Definition of Terms

- DESE: Missouri's Department of Elementary and Secondary Education
- GMRT: The Gates-MacGinitie Reading Test is a standardized reading achievement test that covers many reading skills including word decoding, word knowledge, and comprehension.
- RTI: Response to Intervention – A 3 tiered instructional methodology of academic intervention used to provide early, systematic assistance to children who are having difficulty learning.
- SIPPS: Systematic Instruction in Phonological Awareness, Phonics, and Sight Words – A program for struggling readers from kindergarten through 12th grade.

Summary

The school district is in need of a program to help students become successful readers. This study was conducted to find out if the SIPPS program is an effective tool for teachers to help struggling readers get caught up on their reading skills and perform on grade level as well as increase the overall phonological awareness and decoding abilities of students performing on grade level. This study will compare the reading scores of students who participated in the SIPPS reading program with those who did not participate in the SIPPS reading program.

The classroom teacher and her teammates chose not to implement SIPPS the first year the program was introduced in the district. The 2nd year the program was available

in the district the grade level teachers implemented SIPPS as a grade level intervention.

Data from each of the two groups will be taken and compared to see if SIPPS was

beneficial to the students and if there was a significant difference in student achievement.

Review of Literature

Effective practices in reading instruction have been at the forefront of research for decades. There have been many studies over the years and many companies who have created program after program to try and find what helps students become successful readers. According to text, *Teaching Reading in Today's Elementary Schools*, "Educators have long made reading instruction a priority in the school curriculum, especially in the primary grades." (Roe, Smith, & Burn, 2009, p. 1)

Jenkins (2012), in his article title *Stop the Pendulum*, states that more than 100 years ago G. Stanley Hall, author of *How to Teach Reading and What to Read in School*, described the three approaches to reading available in the 1800s: sounds, words, and sentences. Jenkins states that in the past 115 years, America has not developed a fourth approach.

According the Fredrick McDonald , when students read they must be able to perceive symbols and interpret them, follow patterns of written language, relate words to direct experiences, make inferences and evaluate material, remember what they learned and incorporate new ideas, recognize connections between symbols and sounds, between words and what they represent, deal with personal interests that affect the task of reading, and finally put everything together to make sense of the material (Roe et. al, 2009).

There are numerous materials and approaches to reading instruction. According to Roe et al. (2009) a few major approaches to reading instruction include basal reading series, the literature-based approach and the language experience approach. Basal reading series come with a teacher's manual that includes teaching activities, student books,

workbooks and assessments. They are the most widely used material for teaching reading in the United States. The literature-based approach uses high-quality literature as the basis for instruction. Finally, the language experience approach is an approach in which reading and other language arts are interrelated in the instructional program and the experiences of the students are used as the basis for reading materials. Each approach has strengths and weaknesses and ultimately educators must decide which approach or combination of approaches is best for the students they are instructing.

When instructing students in reading there must be a balanced approach or program, one that incorporates word recognition and comprehension strategy instruction. The Systematic Instruction in Phonological awareness Phonics, and Sight words (SIPPS) program focuses on the word recognition strategies and skills necessary for developing comprehension strategies. In determining an effective reading program, the following research and best practices support the foundation of the SIPPS program: systematic instruction, phonological awareness, phonics, and sight words. The program also has a fluency aspect which is also discussed in detail (Shenfeld & Newman, 2004).

Systematic instruction and phonological awareness are a crucial first step in identifying an effective reading program. The National Reading Panels' (NRP) research supports that children taught with systematic phonics instruction make bigger gains than children taught with alternative reading programs that are unsystematic or programs that have no phonics instruction. NRP identified that phonemic awareness is an important component in a balanced literacy program. It is a powerful predictor of success in reading. Research suggests that the brain is a pattern detector, rather than an applier of rules (Cunningham, 2004).

Teaching phonological awareness with patterns of words and phonemes can help students further understand words and their parts. Word work practice gives students the opportunity to investigate words and organize patterns of words.

Rasinski (2004) has discovered that working with words empowers beginning readers to learn words by identifying word parts or word families that share sounds. According to Wanzek, Bursuck, and Dickson, S. (2003) phonological awareness abilities account for significant differences between good and poor readers. Research supports instruction in phonological awareness as one avenue to improved reading for all students. Students with reading problems can improve in phonological awareness when they receive explicit, systematic instruction.

Next, we'll look at information and research related to improving a student's decoding skills. Students must be able to decode words by breaking them apart and looking at individual phonemes. Explicit and systematic instruction is needed for students to understand how this is to be done. Pullen, Lane, and Lloyd (2005) highlight the importance of explicit instruction to promote growth in children who experience initial failure in reading or who lack sufficient background knowledge and skill.

Whitaker, Harvey, Hassell, Linder, and Tutterrow (2006) found that students who have trouble decoding words have not learned enough phonics to properly decode unknown words. They recommend using a strategy they call the FISH strategy to decode unknown words. This decoding strategy uses onsets and rimes and helps students use what they already know about words to help them decode words that are unknown. According to Whitaker et al. (2006) "The more natural proclivity for learning onset and rimes may be related to the fact that for most children sensitivity to rhyme develops

easily and is one of the earliest instances of phonological awareness to emerge; thus, it makes sense to use this skill of rhyming to help support the study of more abstract and difficult phonological insights” (p. 15).

Successful readers also must develop a store of sight words, words that are recognized immediately without having to analyze the word. This is important for automatic recall of words, especially for those words that don't follow regular spelling patterns. The bigger a student's sight word vocabulary, the more rapidly and fluently he or she can read text (Roe et al., 2009). The SIPPS program uses a rehearsal technique to teach sight words. New words are introduced in a sentence, then the student reads the word, spells the word, reads the word again, spells the word again, and finally reads the word one more time. Students then review the new word with sight words already learned using a review method of reading the word, spelling the word and reading the word again. According to Roe et al. (2009) implementing a rehearsal technique facilitates mastery, builds fluency, and leads to retention of reading words for struggling readers.

Along with phonological awareness, phonics instruction, and sight words, fluency is a crucial piece in producing successful readers. The National Reading Panel identified fluency as one of the key reading abilities. Creating fluent readers will help students raise their comprehension, understanding the text, which is our ultimate goal in reading. According to Rasinski (2004) in the article, “Creating Fluent Readers”, successful reading requires readers to process (the surface level of reading) and comprehend the text (the deeper meaning). We must help our students gain control over the surface level by providing them with fluency instruction and practice before they can move on to the deeper level of text, the part where they are able to make meaning of the text. According

to recent research fluency and decoding are critical skills for students to be successful in their independent reading in order to comprehend what they are reading. In order for students to comprehend rigorous texts at or above their age appropriate level, they must be able to decode words independently and read with fluency. If students are lacking these skills they will have difficulty at a comprehension level.

Students need to hear fluent reading and how fluent readers interpret the text with their voices (Rasinski, 2004). Repeated reading research shows that students improve their ability to decode, reading rate, prosodic reading, and comprehension (Rasinski, 2004). In a research study done on repeated readings by Angela and Phillip Roundy (2009) they found that as students improve their fluency they will improve their comprehension, increase their reading level, increase their reading-oriented self-confidence, and expand their understanding and enjoyment of language.

Numerous studies show that phonics and fluency go hand in hand. In a study done by Pullen, Lane, & Lloyd, (2005) on the effects of explicit instruction on decoding, the authors found that when letters were used to practice word work and segmenting words was embedded in lessons that also incorporated repeated reading of familiar, predictable text (letter manipulation training), students in the study group had better decoding skills. Rasinski et al. (2008), describes phonics and fluency as two different spices in the recipe for reading, “It’s the mixing of the two spices that result in a special ingredient that adds more to a culinary delight than what each could contribute individually.” (p. 257) These authors also state that one of the most useful spelling patterns for beginning readers are rimes or word families which is also supported in a previous paragraph with the FISH

strategy. Explicitly teaching word families can help students learn numerous words by recognizing word families within various words.

In *Every Child, Every Day*, Allington and Gabriel (2012) point out that although we know now more than ever the methodologies and best practices of what it takes to help every child become a successful reader, many students aren't receiving the instruction that will help them become a successful reader. They suggest six things that every child should do, every day, to improve student achievement. The six things include (1) read something of choice, (2) read something accurately, (3) read something they understand, (4) write about something personally meaningful, (5) talk with peers about reading/writing, and (6) listen to a fluent adult read. Allington and Gabriel (2012) state based on their research if schools and teachers would make time for the six practices outlined above, then we would see a rise in student achievement.

In addition to the components of the SIPPS program, looking at reading attitude, confidence and enjoyment is yet another important element to creating a successful reader. If students have a positive attitude toward reading, then they will be more intrinsically motivated to read. When students are motivated to read they will practice their reading skills more often and improve on their own. Students can develop a positive attitude toward reading when they are able to independently decode and read grade level material fluently.

In looking at research related to enhancing students' attitude toward reading there are many factors that contribute. Some of these factors are within a teacher's control and some are not. An effective teacher must make sure that she is implementing the suggestions that will promote a positive reading attitude. It's important that all adults

involved in a child's educational growth realize that a child's attitude for reading can be changed (Gao & Mager, 2011).

According to Gao and Mager (2011), affective reading instruction is what enhances the development of personal interests, values, a positive attitude and the ability to read for both information and enjoyment. When teachers work with students in regard to reading it is important that they show an excitement for reading to engage students and get them motivated to read. Another thing Gao and Mager (2011) recommend to improve students' self-concept in reading is making sure adults working with the student offer praise and encouragement all along the way. Their self esteem related to their reading ability is especially fragile when they are a young, struggling reader and teachers should make sure they are giving students positive encouragement along their journey reading.

Reading intervention programs play such an important role in helping students become successful readers. It is important that educators are using a program that is research-based and works in their school, with their students. ReadingRockets.org provides a comparative chart that looks at many different reading intervention programs. SIPPS is one of the programs identified on the chart as being an intervention program capable of producing positive academic effects. By implementing the SIPPS program, student reading achievement will improve. The SIPPS routine is designed with a strong research-based rationale. Within each lesson, students will practice all of the elements outlined above that are proven effective by various research studies (Shefelbine & Newman, 2004).

Within the SIPPS program students will be given explicit phonological awareness and decoding strategies which will improve their word reading skills. Just as Whitaker et

al. (2006) recommended from their practices of using onset and rimes to help them decode unknown words, the SIPPS program teaches onset and rimes through the phonemic awareness portion of the program. Next students will practice sight words and spelling. This practice will help comprehension and reading speed. Finally, the last part of each lesson incorporates fluency practice. The passages students read for the fluency portion correlate directly with the spelling sound correspondences and include the sight words learned within the program.

Explicit instruction in all parts of the SIPPS program will improve student reading abilities. Increasing a student's reading ability will also increase their confidence and instill a love for reading within them. All of these objectives taught through SIPPS will improve students overall reading experience. Numerous studies have shown that improving the areas that SIPPS addresses will help student achievement.

Cortelyou (2011), a literacy coordinator and reading intervention teacher who hold a National Board Certification and a doctorate in Curriculum and Instruction, used the SIPPS program within her classroom. She found that the instructional routines offer a powerful, consistent daily structure for lessons. She states that the integration of connected texts help students apply the skills they are working on rather than other phonics programs that focus more on reading words in isolation. All students that participated in her SIPPS reading group made significant gains in letter/sound correspondences, blending, and sight word knowledge and they were all becoming more confident readers.

In the classroom research developed, using the SIPPS program should prove to be an effective reading program. It's important for educators to continue finding research-

based strategies and trying them within their own classrooms and analyzing the effectiveness of their instruction by implementing their own action research. Teachers should also be reminded of how important it is to be positive about the reading experience and model this for their students. They should strive to explicitly teach reading skills to students who need more assistance with the surface level structures of reading. Teaching phonological awareness, phonics, sight words, and fluency together and making it engaging will help students succeed in their reading achievement.

Research Methods

Research Design

An experimental study served as the research design. The alpha level was set at 0.20 for all tests with this research. The independent variable was the group of students. One group was instructed using SIPPS and one group was instructed without using SIPPS. The dependent variables were different assessment scores of the students. A t-test was run to find if there is a significant difference in the two groups.

Study Group Description

The study group for this research consisted of two different groups of 2nd graders in a public school in a suburban area in the Midwest. One group was the second graders from the 2012-2013 school year and the other group was the second graders from the 2013-2014 school year. The second grade group in 2012-2013 did not receive SIPPS instruction. The group from 2013-2014 did receive SIPPS instruction. The top thirty-eight percent of students were taken out of each group's data because the top 38% from 2013-2014 did not receive SIPPS instruction. This 38% did not receive SIPPS instruction because they tested out of the SIPPS program's initial placement assessment. It can be assumed that the top 38% of the 2013-2013 group would not have received SIPPS instruction either because of their high performance.

The following information was obtained from Missouri's Department of Elementary and Secondary Education (DESE) with data from 2012. The free or reduced population at this school for 2012 was 47.0%, student to classroom teacher ratio was 14, the population was 466 with 86.3% white and 5.2% black, and the attendance rate was 94.9%.

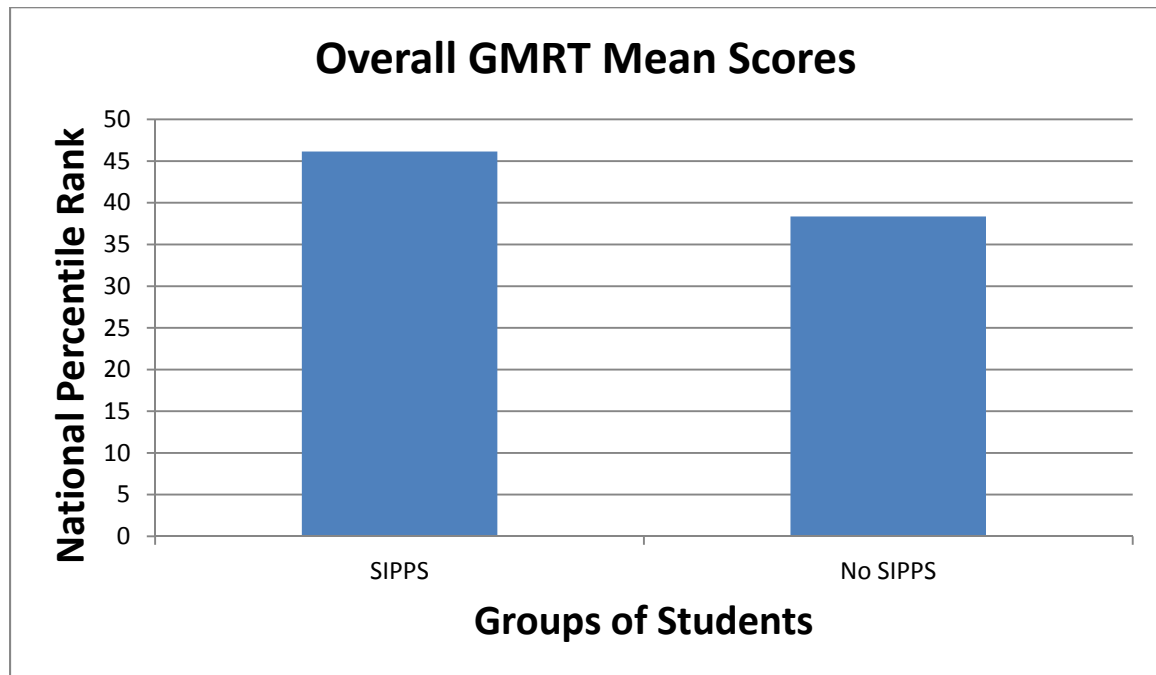
Data Collection and Instrumentation

Data was collected by assessing both groups of students' reading performance. Students were assessed on their reading performance with the Gates-MacGinitie Reading Test (GMRT). The GMRT is a standardized reading achievement test that covers many reading skills including word decoding, word knowledge, and comprehension. The GMRT is produced by Riverside Publishing.

Statistical Analysis Methods

A Statistical Package (ASP) software was used to complete the data analysis. A t-test was run to find if there is a significant difference in the two groups of students. Additionally, Excel was used to organize data and prepare it to be entered into ASP. Excel was also used to create the graphs in the Findings section.

Findings



Of the 46 students who took the GMRT after receiving SIPPS instruction, the average score was 46.15. Out of the 45 students who took the GMRT after receiving no SIPPS instruction, the average score was 38.36.

A t-test was performed to find out if there was a significant difference in reading performance based on GMRT scores based on the two different groups of students. The source was broken into two status categories Status 1 for Group 1 (students who received SIPPS instruction) and Status 2 for Group 2 (students who did not received SIPPS instruction). The mean, mean D, t-test, DF, and p-value were concluded from this test. The Alpha level was set at 0.20 to test the null hypothesis: There is no difference in overall GMRT scores of who received SIPPS instruction and those who did not received

SIPPS instruction. The tables that follow will show the organized findings based on the statistical raw data obtained from the GMRT scores.

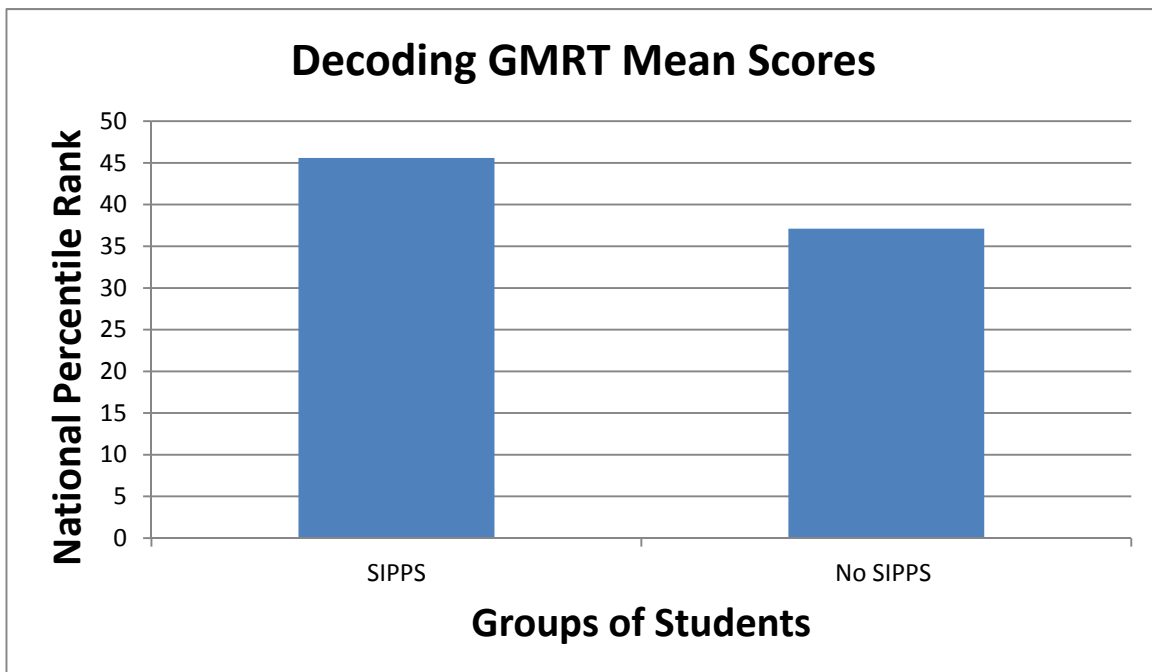
Figure 1

t-Test Analysis Results for Students Receiving SIPPS and No SIPPS Overall GMRT Scores

Source	Mean	Mean D	t-test	df	p-value
SIPPS	46.15				
No SIPPS	38.36	7.80	1.51	89	0.14

Note: Significant when $p \leq 0.20$

The mean GMRT score for the SIPPS group was 46.15, while the mean GMRT score for the No SIPPS group was 38.36. The difference between the mean scores (Mean D) was 7.80. The t-test value was 1.51. The degrees of freedom were 89. The null hypothesis was rejected because the p-value is 0.14, which is less than the alpha level of 0.20. This means that there is a significant difference between having SIPPS instruction and not having SIPPS instruction measured by GMRT scores. The students who received



SIPPS instruction had higher overall GMRT scores.

Of the 46 students who took the GMRT after receiving SIPPS instruction, the average score on the Word Decoding subtest 45.59. Out of the 45 students who took the GMRT after receiving no SIPPS instruction, the average Word Decoding score was 37.12.

Another t-test was run to find out if there was a significant difference in the two groups of students based solely on the “Word Decoding” subtest of the GMRT. Again, the source was broken into two status categories Status 1 for Group 1 (students who received SIPPS instruction) and Status 2 for Group 2 (students who did not receive SIPPS instruction). The mean, mean D, t-test, DF, and p-value were concluded from this test. The Alpha level was set at 0.20 to test the null hypothesis: There is no difference in Word Decoding GMRT scores of who received SIPPS instruction and those who did not receive SIPPS instruction.

Figure 2

t-Test Analysis Results for Students Receiving SIPPS and No SIPPS Word Decoding GMRT Scores

Source	Mean	Mean D	t-test	df	p-value
SIPPS	45.59				
No SIPPS	37.12	8.45	1.53	89	0.13

Note: Significant when $p \leq 0.20$

The mean Word Decoding GMRT score for the SIPPS group was 45.59, while the mean Word Decoding GMRT score for the No SIPPS group was 37.12. The difference

between the mean scores (Mean D) was 8.45. The t-test value was 1.53. The degrees of freedom were 89.

The null hypothesis was rejected because the p-value is 0.13, which is less than the alpha level of 0.20. This means that there is a significant difference between having SIPPS instruction and not having SIPPS instruction measured by Word Decoding GMRT scores. The students who received SIPPS instruction had higher Word Decoding GMRT scores.

Conclusions and Recommendations

It was found there was a significant difference between overall GMRT scores between students who received SIPPS instruction and those students who did not receive SIPPS instruction based on the p-value of 0.14. It was also found that there was a significant difference between on the scores for the Word Decoding subtest on the GMRT for students who received SIPPS instruction and those who did not receive SIPPS instruction. Students who were instructed with SIPPS outperformed their peers who were not instructed with SIPPS.

The conceptual underpinning was that students who are instructed with the SIPPS program would increase their reading achievement scores. The findings from this study show that students who are instructed with the SIPPS program outperform their peers who are not instructed with the SIPPS program. Therefore the findings of this study validate the conceptual underpinning.

Based on the results from this study, the SIPPS program has proven to be an affective program that can help students improve their reading achievement. Since some of the students that were instructed with SIPPS were also on a computer based reading program called iReady, it may be helpful to conduct a future study to compare students reading scores who only received SIPPS instruction and those students who only received iReady instruction. Then a comparison can be done to see if there is a significant difference between the results of those two groups. Another study that might be helpful to analyze SIPPS implementation, would be to compare student scores from Kindergarten, 1st Grade, and 2nd Grade to see how effective the program is from year to year. This would see if over time SIPPS has a positive impact on reading achievement.

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