RUNNING HEAD: Nonsense Words and Reading Fluency

Relationship Between Nonsense Word Fluency Benchmark Scores and Oral Reading Fluency Benchmark Scores

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Abstract

Teachers are spending ample time teaching and testing nonsense words in the classroom to teach students how to read, however many first graders are not meeting the fluency benchmark at the end of first grade. This action research project was conducted to see if there was a connection between nonsense word reading ability and oral reading fluency. Data was collected from Nonsense Word Fluency tests and Oral Reading Fluency tests from the AimsWeb assessment instrument. There were ten students who participated in this study. A survey was also administered to find out the beliefs and perceptions of teachers and parents about the teaching and testing of nonsense words to teach students how to read. The conclusion from this action research is that there is not enough data to come to a decision and that more research needs to be conducted.

Introduction

Background, issues and concerns

A trend in literacy being used in many classrooms across the nation involves teaching students to decode words by using nonsense words. The definition of a nonsense word is a word with no meaning. Some in the education world believe that using nonsense words to teach students how to read is beneficial.

Researchers have focused in on the area of nonsense words and researchers have examined different angles of using nonsense words. One angle that has received a lot of interest in the research is the correlation between reading nonsense words and reading real words. Teachers are using two assessment instruments with students to assess reading ability. One of those tests is the Nonsense Word Fluency (NWF) test. This test allows the student one minute to read consonant-vowel-consonant (cvc) nonsense words and a score is determined by how many sounds the student reads correctly (Fuchs, 2004). The other assessment instrument is the Oral Reading Fluency (ORF) test. This test allows the student one minute to read a passage and a score is determined by how many words they read correctly.

Research indicates a link between Nonsense Word Fluency achievement and Oral Reading Fluency(Fien, 2010). Research also shows that the progress made in reading nonsense words does have an impact on reading fluency (Good, 2008; Cummings, 2011). People have taken interest in researching the correlation between reading the nonsense words and reading fluency. One study found that the more gains students make on the NWF, the higher their score will be on the ORF (Harn, 2008).

Practice under investigation

First grade teachers are using nonsense words to teach students how to read. Students are practicing reading and spelling nonsense words, as well as being tested on their ability to read and spell nonsense words. This study focuses on that practice.

Conceptual underpinning

It has been proven that teaching phonics helps students learn how to decode unknown words. Research suggests that phonemic awareness and phonics knowledge are important building blocks to learning how to read. Research has proven that there is a link between the students' ability to read nonsense words and their ability to read fluently. The progress that students make in reading nonsense words has a direct impact on their reading fluency (Good, 2008).

Nonsense Word Fluency tests are commonly used in kindergarten and first grade classrooms across the country. Studies have found that the NWF test is a valid measure of early reading success and can target poor readers (Speece, 2003). The Nonsense Word Fluency test is most commonly used at the first grade level.

There are some people that are against using nonsense words to teach reading. People like Ken Goodman believe that using nonsense words encourages students to forget about the meaning of reading words which may impede progress towards reading competence (Goodman, 2006). Using nonsense words can also be confusing for students who are trying to make sense of words or who can be tricked by the spelling of the nonsense words because these words are so similar to the invented spellings of real words they are accustomed to.

Statement of the problem

A majority of students in first grade are not meeting the spring benchmark for reading fluency. First grade teachers test students every couple of weeks and every quarter on their ability to read nonsense words. They spend so much time testing and teaching students to read nonsense words, thinking that it will improve their decoding skills and thus improve their reading fluency. Many words in the English language are "cheater words," meaning they cannot be sounded out, thus bringing into question the theory that reading nonsense words fluently increases oral reading fluency. It needs to be determined if the time spent on testing nonsense words is helping students become better decoders, and in turn becoming more fluent readers. If the students are not being able to decode words faster, thus being able to read faster, then instructional time could be used more productively teaching students how to become a fluent reader.

Purpose of the study

The purpose of this study is to determine if the time spent teaching and testing nonsense words is the most effective use of instructional time. The data collected from this research will help teachers look more closely at how they are teaching reading and what aspects of the current reading program are beneficial and which are not. The results from this study can be shared with administrators and grade level teams and used to inform future curriculum decisions.

Research questions

RQ#1: Do students who meet the benchmark on NWF scores also meet the benchmark on the RCBM scores?

RQ#2: How do parents and teachers feel about the teaching and testing of nonsense words to teach students how to read?

Anticipated benefits of the study

The result of this study will inform teachers and administrators about the influence of students reading nonsense words on the student's ability to read passages fluently. It will help teachers decide if the time used on teaching and testing nonsense words benefits students learning how to become fluent readers or if the instructional time could be used more effectively.

Definition of terms

NWF: Nonsense Word Fluency

ORF: Oral Reading Fluency

CVC: Consonant, Vowel, Consonant

PTR: Pathways to Reading

Summary

More time is spent on teaching and testing students' ability to read and spell nonsense words than on teaching students to become fluent readers. This research investigates the correlation between reading nonsense words and reading real words in passages. This research also looks at the attitudes and perceptions of parents and teachers about the use of nonsense words to teach students how to read.

Review of Literature

Good, Baker, and Peyton (2008), identified five factors that are important for reading success: phonemic awareness, phonics or alphabetical principal, fluency or accuracy, vocabulary and language development, and reading comprehension. Nonsense words primarily focus on phonics. Nonsense Word Fluency is part of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test. The article stated, "the rationale for using nonsense words to measure student attainment of critical reading skills is derived from the extensive research base on learning to read in an alphabetical writing system, such as English, in which systematic phonics instruction should play a major role" (Good, 2008, pg. 35). Phonics instruction is more effective if delivered systematically rather than unsystematically or not at all. Basically, Nonsense Word Fluency (NWF) determines how well students can apply phonics to decode unknown words. The reason the test does not use real words is because "it may not be clear what strategies the student is using to accurately read real words" (Good, 2008, pg. 36). The test includes a list of nonsense words that students are asked to read as a whole word or each sound in the word in one minute. Only short vowels are used and mainly cv and cvc words. The research in this article found that there was a correlation between the progress on NWF during the first semester in first grade and reading outcomes in first grade. This progress is due to the fact that first grade focuses heavily on phonics which is what is tested on the NWF test (Good, 2008).

The authors were advocators for using nonsense word reading tests to determine reading success, but they also noted the importance of real word identification too. Word Identification Fluency (WIF) in the early grades focus is too much on words where the normal phonics rules do not apply. If a teacher is focusing on WIF then the teaching may shift away from systematic

phonics instruction which is important for reading success. The article concluded with stating that the NWF test was a good predictor of reading success in first grade. They stressed that it is important to teach the skills necessary to read nonsense words and not to just teach nonsense words (Good, 2008).

Crewther, and Crewther (2006) found research that concluded that reading nonsense words in the primary grades was not a valid test to measure the knowledge of phonics. Their findings concluded that the results from the tests that were using nonsense words and real words were not that much different. The researchers found that in the first four years of school there was a strong connection between reading real words and nonsense words. This research found that the phonics knowledge was tied more to real word reading than it was with nonsense word reading. They also tested the speed at which the students were reading the real words and nonsense words. Their evidence suggests a very small difference in the speed the students were able to produce the words with real and nonsense words. Since there was no significant difference in the data received from both tests, the study found that having students read nonsense words was not any better at measuring phonics skills than having students read real words (Crewther & Crewther, 2006).

Fien, Park, Baker, Smith, Stoolmiller, and Kame'enui (2010) find a high correlation between students being able to read nonsense words and their reading performance. Their examination contained research in classrooms where students were being taught phonics and phonemic awareness and the nonsense words were just used as a test. The Nonsense Word Fluency test in the DIBELS program is used to assess students' decoding skills. After the NWF test was given in the fall, teachers would place students into tiers based on their initial NWF

score. Students that were put in tiers 2 and 3 received more support and direct instruction of phonics and phonemic awareness.

Another test that was included in this research was the Oral Reading Fluency test, which is also another DIBELS test. The study in this article found that the gains students made in their NWF scores was a good indicator of their scores they would receive on their ORF test at the end of the year. This statement is only true to the lower performing students. The research found no evidence to prove that the Nonsense Word Fluency test had any correspondence with the Oral Reading Fluency test. Also, they found that the gains made in NWF from fall to winter were stronger with the lower scoring group, and the gain made in NWF from fall to winder were weaker with the higher scoring group. The gains that are made in the beginning of the year have a much stronger effect on the end of year reading outcome. In conclusion, the authors believe that the Nonsense Word Fluency test is a great tool to use to identify reading problems early on and is useful to use to monitor gains in decoding skills (Fien, et al, 2010).

Speece, Mills, Ritchey, and Hillman (2003) focused on using Letter Naming Fluency tests and Nonsense Word Fluency tests to determine reading problems in kindergarten and first grade. The article also found correlations between the LNF scores and other test scores given in kindergarten and first grade. First, letter naming fluency scores in kindergarten correlated with word identification scores in first grade. Secondly, the scores on the Nonsense Word Fluency test in the middle of first grade correlated with the oral reading test at the end of first grade (Speece, et al, 2003).

Nonsense Word Fluency includes phonological awareness, which is stated to be one of the "two best predictors of how well children will read in their first 2 years of schooling" (Speece, 2003, pg. 224). The research of this article found that "Letter Naming Fluency and

Nonsense Word Fluency identified 85.7% of the poor readers in first grade…" (Speece, 2003, pg. 230.) The article concluded that Nonsense Word Fluency is a valid measure to identify low readers in the early elementary, however it is best suited for first-grade. Overall this article was for using nonsense word tests in reading to increase reading fluency.

Goodman (2006) discusses the NWF test that is used in the DIBELS assessment in his book The Truth About DIBELS. Words on the NWF test look very similar to the invented spellings that students use in their writing in the early elementary. Students become confused when they are asked to read "nonsense" words because they see them as ways to spell real words they use in their writing and speaking. Some of the nonsense words on these tests are also similar to words used in other languages, such as Spanish, and can make it difficult for students to see some of those words as nonsense words. For children who have learned spelling rules and are more knowledgeable about the English language, they will have problems reading nonsense words since the words violate spelling rules. Also, students who are fluent readers will have problems reading nonsense words because they will want to make sense of the word and those students may get a lower score because they take time trying to make sense of the word. Goodman also found another downfall for the NWF test noting that some of the nonsense words look like real words, so fluent readers will be easily confused. Students are told to say the sounds correctly or read the word and not pay attention to making sense of the word. This teaching instruction, as Goodman states, "Can hardly be constructed as progress toward reading competence" (Goodman, 2006, pg. 27). Goodman also highlighted the point that the idea of testing nonsense words is not for teachers to teach nonsense words, but to teach phonics. Going along with Goodman's beliefs is the research Fuchs did that found using real words to teach students how to read was more reliable than using nonsense words (Fuchs, 2004).

As for the outcomes of Oral Reading Fluency based off of Nonsense Word Reading Fluency, Cummings (2011) found that NWF status and progress in first grade does predict ORF outcomes. Many different research projects have been conducted that prove that the gains made in reading nonsense words has a positive impact on the oral reading fluency score (Harn, 2008; Cummings, 2011; Good, 2008; Fien, 2010) One article found that the correlation between nonsense words and oral reading fluency was that reading the nonsense words as a unit had a stronger impact on the oral reading fluency score than did reading the nonsense words sound by sound (Harn, 2008).

Research Methods

Research design

A quantitative study was conducted to see if there was a connection between reading nonsense words and oral reading fluency. Student scores from the fall and winter benchmarks for the NWF and winter benchmark for the RCBM were collected. A qualitative study was conducted to analyze the beliefs and perceptions of teachers and parents on the issue of using nonsense words to teach students how to read in first grade. A survey developed by the researcher included one descriptive item and four selected response items concerning the use of nonsense words to teach reading. (See Appendix A)

Study group description

Scores from a group of 10 students in first grade were selected at random to participate in this study. These students range in age from six to seven years old. This group of students lives in rural Missouri in a town of approximately 12,000 people.

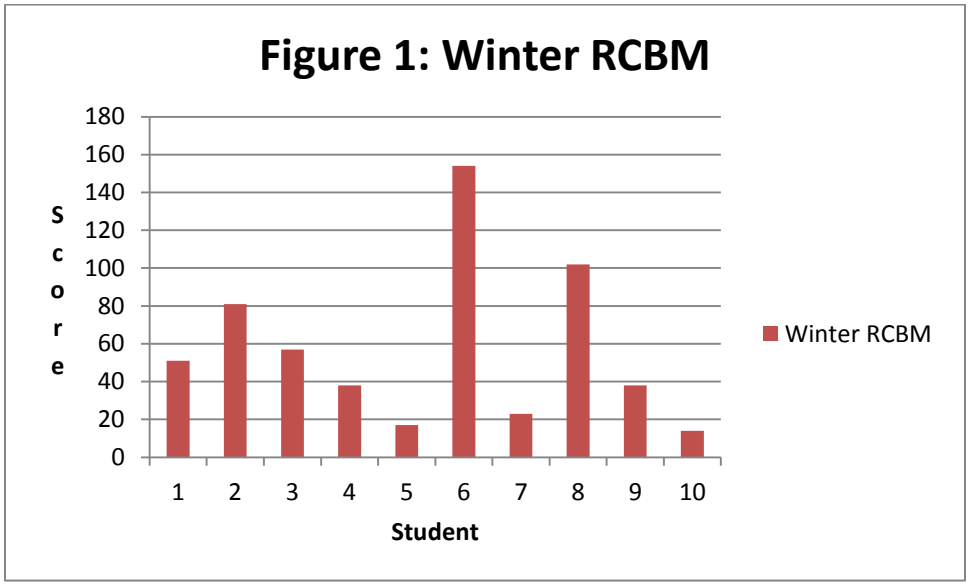
A group of five adults living in Maryville, Missouri was also included in this study. The group consisted of three teachers and two parents. All participants live in rural Missouri in the town of Maryville, Missouri.

Data collection and instrumentation

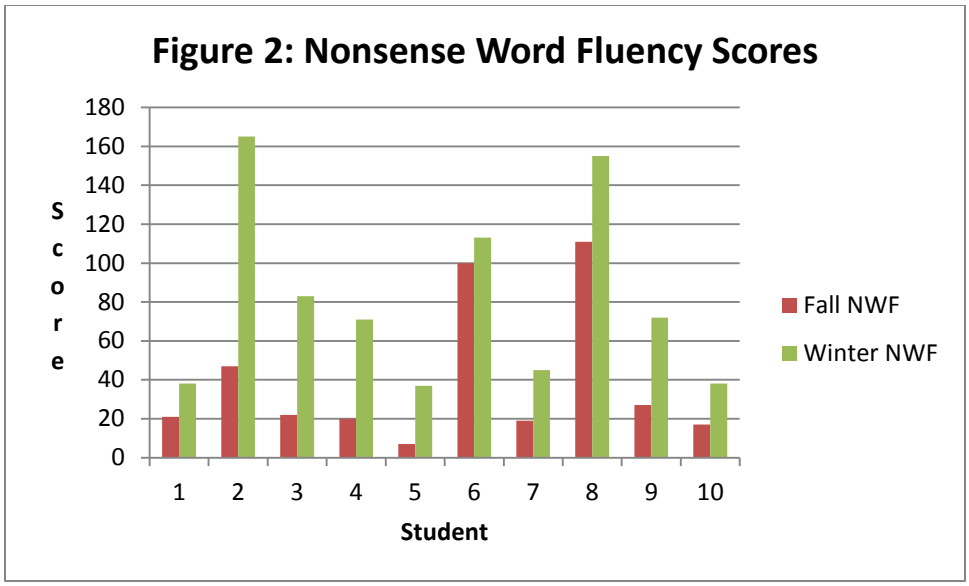
Data was collected from Nonsense Word Fluency scores on AimsWeb and reading fluency scores on the Reading Curriculum Benchmark on AimsWeb in a first grade classroom. These scores were collected from with 2012-2013 school year. Names were removed and numbers were assigned to protect student identity.

Findings

Out of the ten students who were tested, seven met the winter benchmark for the RCBM of 36 words per minute (wpm). The benchmark for spring is 67 wpm and three out of ten students met or exceeded that benchmark. Figure 1 shows the RCBM scores for the winter benchmark using the AimsWeb testing instrument.



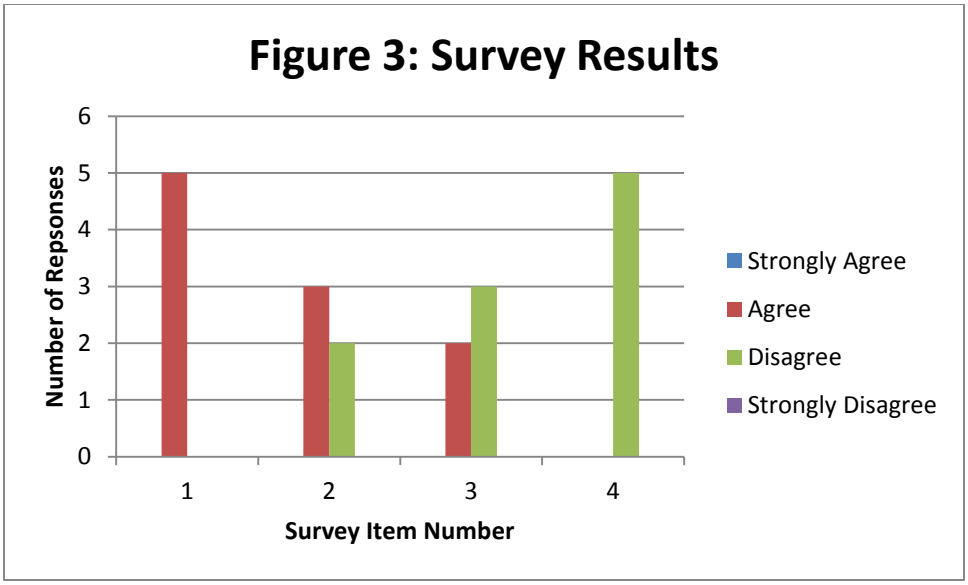
Data from the fall and winter benchmarks was collected on the Nonsense Word Fluency test for the same ten students. On the fall benchmark three out of ten students met the benchmark score of 34 sounds in one minute. On the winter benchmark six out of ten students met the winter benchmark score of 49 sounds in one minute and all ten students met the fall benchmark score of 34 sounds. Figure 2 below shows the data for scores on the fall and winter AimsWeb benchmarks for Nonsense Word Fluency.



Looking at the scores from the NWF tests and how they relate to the RCBM scores, the research indicates that three students who met the fall benchmark for NWF also met the winter benchmark for RCBM as well as the spring benchmark. There were six students who met the winter benchmark for NWF and all six of those students met the RCBM benchmark for winter. Four of those six students also met the spring benchmark for RCBM of 67 wpm.

There were seven students who did not meet the benchmark for NWF in the fall. Of those seven students, four students met the winter benchmark for RCBM. Only one of those four students also met the spring benchmark on RCBM. There were three students out of ten who did not met the NWF fall or winter benchmark or the RCBM winter and spring benchmark.

Below in Figure 3 is the data collected from a survey given to parents and teachers about their feelings toward using nonsense words to teach students how to read.



Item number one stated, "Teaching students to read nonsense words helps them become better readers." All five respondents agreed with that statement. Item number two stated, "Students should be tested and given a grade on their ability to read nonsense words. Two parents and one teacher agreed with that statement and two teachers disagreed with the statement. Item number three stated, "Students who read nonsense words fluently are fluent readers." One parent and one teacher agreed with that statement while one parent and two teachers disagreed. Item number four stated, "The score students receive on the nonsense word reading test can predict the student's oral reading fluency success." All respondents disagreed with that statement.

Conclusions and Recommendations

After reviewing the data collected conclusions can be made pertaining to benchmark scores. First, students who meet the nonsense word fluency benchmark are likely to meet the oral reading fluency benchmark. Second, students who do not meet the nonsense word fluency benchmark may or may not meet the oral reading fluency benchmark. The data shows that some students did not meet the NWF benchmark but were able to meet the RCBM benchmark, as well as there were some students who did not meet the NWF benchmark who also did not meet the RCBM benchmark.

Although teachers and parents agree that teaching nonsense words helps students become better readers, there is some discrepancy among the participants on the other items. Some thought that it is appropriate to give students a grade on their ability to read nonsense words while others viewed it as inappropriate. Some perceived the statement about students who read nonsense words fluently are fluent readers as accurate, while others felt otherwise.

Some conclusions can also be made about the feelings of parents and teachers about the teaching and testing of nonsense words. First, teachers and parents agree that teaching students to read nonsense words helps them become better readers. Second, most teachers disagree with the thought that all students who can read nonsense words fluently can also be fluent readers. Third, parents and teachers disagree with the thought that the NWF score can predict oral reading fluency success for all students.

Some recommendations can be made for schools, teachers, and parents from the findings of this action research. First, schools should look into ways to improve reading fluency and not rely solely on using nonsense words to help students become readers. Second, teachers need to have other resources and strategies available to teach those students who do not learn how to

decode by reading nonsense words. Since only five people responded to the survey, additional survey research should be conducted to more reliably represent teacher and parent perceptions. Lastly, this data does not prove or disprove the fact that nonsense word reading ability does impact oral reading fluency so more research needs to be done to look at this issue more closely.

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Appendix A

Survey Items

Objective: To explore and analyze the correlation between students reading nonsense words and their ability to read fluently.
Directions: Read each statement or question and circle the answer that best describes your beliefs and/or perspectives.
Participation is voluntary, you do not need to answer all of the questions, you may stop taking this survey at any time, and this survey is completely confidential.

1. Circle the option that best describes your position for taking this survey.

   Teacher Parent Administrator

2. Teaching students to read nonsense words helps them become better readers.

   Strongly Agree Agree Disagree Strongly Disagree

3. Students should be tested and given a grade on their ability to read nonsense words.

   Strongly Agree Agree Disagree Strongly Disagree

4. Students who read nonsense words fluently are fluent readers.

   Strongly Agree Agree Disagree Strongly Disagre

5. The score students receive on the nonsense word reading test can predict the student's oral reading fluency success.

   Strongly Agree Agree Disagree Strongly Disagree