This action research project took place in a public school in a southeastern state. The school is in a rural community and contains 648 students, 60% of whom are on free and reduced lunch. Of the 648 students in the school, 338 are male and 310 are female. The racial breakdown of the school consists of 64% white, 32% black, and 4% either multi-raced or not specified. The particular classroom in which this action research took place was a first grade classroom with 20 students. Of these students, nine were male and 11 female. There were six black students in the class and 14 white students. Though none of the students were specified for special education, one of the students was in the process of being recommended for Response to Intervention (RTI) and three are reported by the teacher as having problems with attention. Of the students who were the main focus of this action research, two are female—one black and one white—and two are male—both white. All of these students regularly meet with the classroom teacher for intervention because they are performing below grade level for reading proficiency.
Statement of Problem

During a spelling test that took place in the classroom described above, I recognized that a number of students were struggling to spell words correctly because it seemed they could not determine which vowel made the specific sound present in the word. Though they could understand the beginning and end sounds in the words, they failed to distinguish the correct vowel sound. When given the word “wing,” for example, two of these four students incorrectly wrote the word as “wang.” Similarly, three of the students incorrectly wrote the words “pink” and “rink” with an ‘e,’ hearing the words then as “renk” and “penk.” Through this observation, I came to the conclusion that these four students were having trouble differentiating between short vowel sounds and patterns. Therefore, I decided to investigate whether these students would benefit from direct phonological awareness and phonics instruction related to hearing and recognizing short vowel sounds and patterns in words.

Research Question

To guide my investigation of the problem above, I developed a research question which would guide my teaching and enable me to investigate a means of addressing the problem. How can the use of an analytic phonics strategy, such as Words Their Way, help students hear and recognize short vowel sounds and patterns in words?

Review of Literature

International statistics in recent years have shown that one in three students of elementary age struggles with the acquisition of basic reading and writing skills. There have been many movements to combat this problem plaguing classrooms across the globe. It is important to note studies have supported the idea that the more sensitive a child is to the sound structure of spoken words, the more likely that child will become a stronger reader, even when taking into account educational measures such as socioeconomic status and perceived intelligence (Carson, Gillon, & Boustead, 2013). One of the many instructional methods used to target helping students struggling with certain aspects of language and reading development is systematic phonics instruction.

Phonics instruction has been seen in classrooms throughout the nation for many decades. It is recognized as teaching the relationship between letters and sounds as well as how to use this relationship to identify words (Mesmer & Griffith, 2006). Systematic phonics teaching is characterized by “the direct teaching of letter-sound relationships in a clearly defined sequence including the major sounds/spelling relationships of both consonants and vowels” (Gray,
Phonics and phonological awareness are extremely important aspects of literacy development playing necessary roles in the process of reading acquisition (Mesmer & Griffith). Phonological awareness often is recognized as one of the strongest predictors of early literacy success (Ouellette & Haley, 2013). Such awareness allows children to link phonemes to graphemes, which in turn supports word decoding ability and subsequent reading comprehension (Carson, Gillon, & Bousted, 2013). Understanding the individual letter sounds relationships within words is seen to be one of the most important skills in learning to read (Ouellette & Haley, 2013).

There are many variables to consider when implementing appropriate phonics and phonological awareness instruction in the classroom. One key consideration is the type of program that is to be utilized. Phonics instruction often is broken into analytic and holistic approaches to teaching. Analytic phonics instruction “encourages children to look at whole words and identify the particular phonic element being taught” (Gray, et al., p. 19). This approach is deemed analytic because it requires students to analyze each part of a whole word. The focus initially in this type of program, is ‘look and say’ but it gradually moves to investigating the facets of phonic and spelling patterns (Gray, et al.). Another key consideration is the time requirement needed to execute an efficient program. Because frequent and intensive sessions are considered an important component of effective phonics and phonological instruction in the classroom, it is essential to deliberate the necessary time needed to successfully integrate a desired program into balanced classroom practices (Carson, et al.).

Finally, it is imperative to consider how to match instruction with students’ developmental levels and needs. Because effective phonics instruction can be implemented for all stages of spelling and language development, it is important to recognize how to incorporate a scope and sequence for content delivery and develop a wide variety of word study activities. Such practices help to promote student engagement and accountability (Mesmer & Griffith, 2006). An example of a particular stage of literacy development is the spelling stage in which students struggle with short vowel sounds and patterns. This level of development is called the letter-name alphabetic stage. Many of the readers who are in this stage of development are easily identifiable by their word-to-word, monotone, disfluent reading. They are usually found in first and second grade are focusing their learning on beginning consonants, digraphs and blends, short vowel families, and the consonant-vowel-consonant (CVC) syllable pattern (Bear, Negrete, & Cathey, 2012).
Method

For this action research investigation, I implemented multiple games and activities recommended by the *Words Their Way* analytic phonics program in order to increase my focal students’ knowledge of short vowel sounds and patterns. I began the investigation by giving an initial primary spelling inventory assessment to determine each student’s spelling stage, which I predicted would be ‘early letter-name alphabetic’ with emphasis on short vowel sounds. Then, I had the students participate in a variety of short vowel activities in which they gained practice recognizing short vowel sounds and patterns in words. Of the multitude of activities presented in the *Words their Way* text, the following were utilized throughout the implementation of the action research investigation.

*The “Hopping Frog” game.* Students are given game piece, which they place on the ‘start’ tile. Then, each student gets a turn to spin a spinner with different short vowel sounds depicted on it. Depending upon which vowel sound they land on, the students will “hop” to the closest word on the game board with that short vowel sound.

*Slide-A-Word.* Each student is given three pieces of paper with letters on them such as the depicted in Figure 1. The teacher calls out words for the students to spell using a particular short vowel sound. The students create the word by sliding the letters to show the appropriate sounds. This activity can be varied by having students take turns coming up with a words for the group to spell and also having the students work with partners where one tells the other a word to “slide”.

Figure 1. Slide-A-Word structure

*Short Vowel Picture Sorts.* Students sort multiple short vowel picture words into the correct category as indicated by the short vowel sound (see Figure 2).

Figure 2. Sorting short vowels

*Show Me.* Students each receive a “show me” pocket such as the one pictured in Figure 3. Each student is given five vowel cards and eleven consonant cards with which to make words. The teacher calls out a word for the students to spell and they are to place the correct cards in the
correct pocket in order to accurately spell the short vowel word. Having the students decide upon the word for their classmates to spell could vary this activity.

![Image of chart and cards]

*Figure 3. Show me chart and cards*

Once I facilitated these activities with the students, I gave a second primary spelling inventory assessment to determine whether or not there had been any improvement in their knowledge of short vowel sounds and patterns.

My timeline was as follows below.

**Day one:** Observe focal students during intervention time when they are completing a practice spelling test. Collect information about areas of phonics that need work, specifically those relating to short vowel sounds and patterns.

**Day two:** Give primary spelling inventory assessment to focal students. Once completed, score their answers to determine which spelling stage the students fall in depending upon the features they answered correctly.

**Day three:** Have students play the Hopping Frog short vowel phonics game

**Day four:** Have students participate in the Slide-A-Word short vowel phonics activity

**Day five:** Have students complete first half of short vowel picture sorts

**Day six:** Have students complete second half of short vowel picture sorts

**Day seven:** Have students play the Hopping Frog short vowel phonics game

**Day eight:** Have students participate in the “slide-a-word” short vowel phonics activity with a partner.
Day nine: Have students participate in the Show Me short vowel phonics activity.

Day ten: Give primary spelling inventory assessment a second time. Score their answers to determine if progress has been made and improvement can be seen, specifically in the area of short vowel sound and pattern recognition.

**Results**

For this action research the *Words Their Way* Primary Spelling Inventory Assessment was given to each focal student. Their assessments were then scored using the following Primary Spelling Inventory Feature Guide:

Because this action research focused on the first three columns of the feature guide—initial consonants, final consonants, and short vowels—the students were only asked to spell the first 15 words in the assessment. After this feature guide was scored, each student was assigned a spelling stage. The stage was determined by highlighting the column in which the student missed two or more features. After scoring the students’ original assessment, the first three features of the students’ feature guide appeared as shown in Table 1.

**Table 1**

*Features of Students*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Number Student A scored correctly</th>
<th>Number Student B scored correctly</th>
<th>Number Student C scored correctly</th>
<th>Number Student D scored correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Consonant</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>6 out of 7</td>
</tr>
<tr>
<td>Final Consonant</td>
<td>7 out of 7</td>
<td>6 out of 7</td>
<td>7 out of 7</td>
<td>6 out of 7</td>
</tr>
<tr>
<td>Short Vowels</td>
<td>5 out of 7</td>
<td>5 out of 7</td>
<td>4 out of 7</td>
<td>3 out of 7</td>
</tr>
</tbody>
</table>
The analysis placed the students in the early letter-name alphabetic stage of spelling development with particular emphasis on short vowel sounds. After the students participated in the multiple activities provided in the analytic phonics text *Words Their Way*, the first three features of the students’ second assessment feature guide appeared as follows in Table 2.

Table 2

*Features of Students After Intervention*

<table>
<thead>
<tr>
<th>Feature</th>
<th>Number Student A scored correctly</th>
<th>Number Student B scored correctly</th>
<th>Number Student C scored correctly</th>
<th>Number Student D scored correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Consonant</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>6 out of 7</td>
</tr>
<tr>
<td>Final Consonant</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
</tr>
<tr>
<td>Short Vowels</td>
<td>7 out of 7</td>
<td>7 out of 7</td>
<td>6 out of 7</td>
<td>7 out of 7</td>
</tr>
</tbody>
</table>

Overall, student achievement in the area of short vowel sounds and patterns was as shown in Figure 4.

*Figure 4. Overall student pre and post results*
As evidenced by the data collected, each of the students showed growth in their accuracy and ability to determine short vowel sounds for the words tested in the primary spelling inventory. Three of the four students achieved two more correct short vowel sounds on their second assessment when compared to their first. Student D showed the greatest short vowel knowledge acquisition, improving by four correct features. The data indicate each of the students showed improvement in their short vowel sound and pattern recognition. Because of the small numbers in my study, however, no tests of significance could be used so no claims of real difference are made.

**Conclusions**

After considering the data and results of my action research there are indications that the use of an analytic phonics strategy, such as *Words Their Way*, positively impacted my students struggle with hearing and recognizing short vowel sounds and patterns in words. The students showed improvements in their ability to recognize the short vowel sound from their initial primary spelling inventory assessment to their second, with one student increasing their accuracy by as much as 57%. It is important to note that not only did the student’s grades improve but observation found they also very much enjoyed the tasks that progressed their learning. They looked forward to participating in the activities and often asked for them by name throughout the day.

It is important to point out that it is not possible to attribute the students’ improvement solely to the analytic phonics program. The students often encounter short vowel sounds and patterns in the lessons they learn every day in the classroom and this could account for some of the progress they exhibited. It is, however, sufficient to say that the activities presented in the analytic phonics program should be further tested as a means of supporting and aiding students’ learning in this particular area. Therefore, I recommend the implementation and testing of this analytic phonics program into any classroom that contains students who are struggling to recognize and differentiate between short vowel sounds and patterns.

In order to fully understand the impact an analytic phonics program, such as *Words Their Way*, has on students who are struggling with recognizing short vowel sounds and patterns in words, I would recommend implementing this same methodology over a longer period of time and using a multiple baseline design. This would help to establish the validity and reliability of the program. I would also be interested in seeing if the analytic phonics program would work when focusing on the more advanced stages of spelling development. Finally, I would be interested in
comparing the analytic approach to phonics instruction to the antithesis holistic approach to phonics instruction.

References


