A CRITICAL REVIEW OF STUDENT GROWTH IN READING SKILLS USING SMALL GROUP INSTRUCTION

By: [Redacted]

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Abstract

All students are different and each student’s needs have to be met a little differently. Teachers can find an activity that works great one year, but the next year, with a different group of students, the activity may not work at all. That’s why small group instruction is so important, because everyone is different. Meeting with students in small group settings gives teachers the opportunity to reach each student’s individual needs as well as each student’s individual learning style. Teachers have tried to meet every student’s needs within whole group settings, but are struggling (Ford, 2008). Teachers are now becoming aware of the benefits that small group instruction has to offer students of various needs (Ford, 2008).

Within this review of literature, student achievement when exposed to whole group instruction is examined first followed by a review of studies on student achievement when exposed to small group instruction showing significant growth. Next, the achievement and growth specifically for struggling readers taught in small groups is explored. It was found that small group instruction in reading renders greater gains than whole group instruction. Classroom application is also discussed. This review focuses on students in grades K-8.
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CHAPTER 1

INTRODUCTION

All students are different. Each student thinks differently and has different needs that need to be met. Although students may be in the same chronological grade, they are working on varying developmental levels. Additionally, students have different learning style needs. There are several different learning styles, such as visual, kinesthetic, auditory, and tactile that needs to be addressed when planning and implementing instruction. In a classroom of 15-20 students, it is very difficult for a teacher to meet all those individual needs in a lesson designed for the entire class, but teachers try to do this every day. A way to meet each students needs could be through small group instruction because it’s easier to meet the needs of 3-6 students in a single lesson than 15-20 students in a single lesson. Small group instruction also more readily allows a teacher to evaluate a student that has been taught in a small group because the student gets more individual attention and responses are more frequent, giving the teacher more chances to observe student progress and behaviors.

Reading is one of the most important subjects for students because if a student does not learn how to read, they cannot perform in other subjects because all subjects revolve around text. That is why small group instruction is so important in reading, so that students can be instructed on their level so that they can achieve more as well as being taught using activities that appeal to their individual learning style. Teachers can proctor progress and identify areas of weakness for students more readily using small group instruction because teachers have more interaction with students. Small group instruction is more applicable for teaching reading because it meets the needs of each individual student, because all students are different.
Statement of Problem

The problem addressed in this paper is that teachers are unlikely providing each student with developmentally appropriate instruction in order to meet each student’s needs within the reading classroom using whole group instruction in grades K-8. Students who receive small group instruction are more likely to receive individualized instruction relative to their developmental level in order to help them grow as an independent reader.

Research Questions

I. Do students show a significant growth in reading skills on various assessments if students are exposed to small group instruction?

II. Do students show a significant growth in reading skills on various assessments during whole group instruction?

III. Do students in small group instruction show a significant growth in reading skills on various assessments for students whom are struggling readers?

IV. Do students in small group instruction show a significant growth in reading skills on various assessments for all students?

V. Does small group instruction produce more growth in students than whole group?
Small Group Instruction Defined

Small group instruction can be defined in many ways. A group of six students can be defined as small group instruction (Mallette, Schreiber, Caffey, Carpenter, Hunter, 2009). In a study conducted of a summer literacy program for adolescents at-risk of being retained, small groups were defined as six students (Mallette, et. al, 2009). In a survey of 1500 primary teachers practicing guided reading groups within the classroom, on average, small group instruction was defined as six students (Ford, & Opti , 2008). Others may describe a small group setting as being as small as three students (Rashotte, MacPhee, & Toregesen, 2001). In this review of literature, reference to small group will imply 3-6. Students were given direct instruction from a teacher or trained professional.

Several reasons surround using small group instruction in the classroom. In Words Their Way small group instruction is rationalized by stating that opinions of ability grouping have seemed negative in the past, but that more research has shown that students will benefit from developmentally appropriate instruction in a small group (Bear, Invernizzi, Templeton, & Johnston, 2008). Mandel Morrow and Smith evaluated group size and story reading in which students were instructed in small group, whole group, and one-on-one(1990). The authors noted that student’s answered more questions correctly and gave longer more in depth answers when read stories in small groups than in the other two settings (Morrow & Smith, 1990). These outcomes provide support for using small group instruction in the classroom.
Student Achievement in Small Group Settings

The main focus of this review of literature is small group instruction and student achievement. This section provides insight into how students can show significant growths when exposed to small group instruction. Three research papers are discussed, one dealing with first through sixth grade students participating in small group instruction, the second dealing with first grade struggling readers while reporting scores for students on grade level as well, and the last discuss how small group instruction can boost parental involvement.

Rashotte, MacPhee, and Torgesen (2001) studied 116 students in first through sixth grade for grade level reading. The students were then placed into two groups where one group received the treatment of small group instruction during their regular language arts period. During this small group instruction the students were instructed using a program called Spell Read which focuses on establishing strong phonetic and auditory skills in order to improve reading skills. For eight weeks, group one received the treatment while group two received regular classroom instruction. The design was reversed for the following eight weeks.

The treatment group for all grades showed significantly larger gains over all in average scores than the control group regarding word accuracy (11.02 versus 12.5), phonological awareness (12.06 versus 4.4), and comprehension (12.5 versus 3.9). The only area that lacked a higher significant growth was in word fluency. This suggests that small group instruction is an effective program that can increase student reading levels, especially for struggling readers because the students used in this study were identified as being deficient readers. Unfortunately, this research design cannot delineate whether the program of Spell Read or small group
instruction were responsible for the outcomes since the students were taught this program only in small group settings. The authors concluded “that a group-delivered instructional program can be successful….. with many reading impaired students” (Rashotte et.al 2001).

Menzies, Mahdavi, and Lewis (2008) studied 42 first graders at a school that was deficient in providing students with differentiated developmentally appropriate instruction within the classroom. The treatment was whole group instruction combined with small group instruction. Students receiving this treatment included groups of students that were reading on grade level and students whom were considered struggling readers. Each group received instruction tailored to fit the needs of its members. The assessments that were given included Developmental Reading Assessment (DRA) which is a criterion-referenced assessment that identifies literacy growth for participants. Another assessment used was Dynamic Indicators of Basic Early Literacy Skills (DIBELS), which assesses student growth in phonological awareness, decoding skills and fluency. The students were assessed weekly to document growth (Menzies, Mahdavi, & Lewis, 2008).

An ANOVA analysis revealed the group labeled as on level showed significant (p<.001) improvement as did the group labeled at risk (p<.001). When analyzing the means the students labeled at risk showed a slower rate of improvement than students labeled proficient. The results indicated that all students benefited academically from the intervention of this small group instruction (Menzies, et. al, 2008).

Small group instruction can also boost parental involvement in some classroom settings because teachers are more aware of each student’s achievement of skills and can more effectively report and discuss expectations with parents. Results of a program in which parental
involvement increased due to small group instruction was reported by Dail and McGee (2008). The researchers observed a summer transition program for students moving from preschool to kindergarten. Students were exposed to small group language arts lessons and student achievement was then communicated to parents. Along with the communication of achievement came information of expectations for students entering kindergarten. This allowed parents and teachers to work together to improve the student’s reading and writing skills as the student begins his/her academic career (Dail, McGhee, 2008).

Student achievement in small group instruction has been presented as showing significant growths for students in first through sixth grades. Small group instruction has also boosted parental involvement for kindergarten students, which in turn can boost academic achievement. It can be inferred from the preceding studies that small group instruction works for struggling readers as well as students that are reading up to expectations. Now that student achievement has been discussed for students in small group settings, student achievement in whole group settings should be addressed.

**Student Achievement in Whole Group Instruction**

Using whole group instruction researchers evaluated struggling 8th grade readers, many whom had been retained. The study encompassed 622 participants, with results for only 537 due to attrition, and utilized a program called READ 180. This program consisted of small group instruction accompanied with whole group instruction. The program also supported teacher modeling, independent reading, instructional reading, and whole class wrap-up sessions at the end of the class period. The researcher then had trained professionals of the program observe the implementation within the classrooms examined. Almost all of the class periods observed found
teachers practicing the READ 180 program using 90 minutes of whole group instruction, which means 15-20 students (Papalewis, 2002).

The outcome indicates that the program, even if implemented in whole group settings only, is an effective program for struggling 8th grade readers. Growth was assessed using Normal Curve Equivalent (NCE) scores from the previous year, and compared gains in NCEs for the year following the treatment. It was found that these students showed significant gains (p<.05) in reading and language arts. The comparison group, however, showed a decrease in scores when compared to the NCE. The members of the comparison group were chosen from the same district with the same criteria as the treatment group (Papalewis, 2002).

Foreman, Fletcher, Francis, and Schatshneider (1998), however, did not find such favorable results for whole group instruction.

In their study, first and second grade students received instruction in one of three approaches to teaching reading: direct code instruction, embedded code instruction, and implicit instruction. Direct code instruction meaning direct instruction of letters and sounds, embedded code instruction meaning less structured instruction in alphabetic principle but found embedded within connected text, and implicit instruction meaning the indirect or accidental learning. The study encompassed 285 students and was conducted in 19 schools in an urban school district. Participants in the embedded instruction group received more whole group than small group instruction. Pre- and post-tests were administered to assess targeted reading skills. The results were analyzed using individual growth curves. Students that received embedded instruction did not show an effective growth as compared to students that received direct code or implicit
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instruction. A problem with these results is that direct code and implicit instruction is not defined by group size (Foreman, Fletcher, Francis, & Schatshneider, 1998).

**Struggling Reader’s Achievement in Small Group Instructional Settings**

Student achievement in small groups has been discussed earlier, with little focus on what small group instruction can do for struggling readers. This section discusses results English as a second language students, students in K-3, and also students in 7th and 8th grade, all of which are labeled as at-risk and struggling. Results favor small group instruction in all studies reviewed.

Swanson, Hodson, and Schommer-Aikens (2005) focused on students from a bilingual community with English as a second language. Thirty-five students in the treatment group to receive small group instruction and thirty-three students in the control group received regular classroom instruction were selected from the same school and grade level. Both groups took a pre-and post-test of either Lindamood Auditory Conceptualization Test (LAC) to test phonemic awareness or the Woodcock Reading Mastery Test (WRMT) to test comprehension and word identification. The pre-test scores were analyzed using an ANOVA which revealed no significant difference between the two groups in terms of reading levels. At the end of this 12 week trial period, an ANOVA analysis was conducted again which did demonstrate significance (p<.001). This indicates that the small group instruction of these struggling readers was superior (Swanson, Hodson, & Schommer-Aikens, 2005).

Reynolds, Wheldell, and Madelaine (2008) examined a program called MINILIT designed for students that had been identified by teachers as having difficulty in reading, and had performed significantly lower on classroom reading assessments. This program underwent three pilot studies with group sizes of 5, 8, and 8 of students between 6 and 7 years of age for a 12
week period. The students were pre-and post-tested using Burt Word Reading Test. At pre-test students in pilot study one were testing at five months behind their chronological age on the Burt Word Reading Test, but after treatment were testing five months ahead of their chronological age. One-tailed t-test and raw scores were used to compare student achievement between pre and post test for each of the three pilot studies showing significant advances (p<.01, p<.001, p<.001). Even though sample sizes were small for all three studies, the results indicate statistical significance in favor of the small group instruction provided by the MINILIT program.

A summer literacy program for struggling 7th and 8th grade students was analyzed by Mallete and Schreiber (2009). There were 30 original participants and was completed by 27 participants, all of whom were being retained. These students participated in tutoring and small group instruction three days a week for six weeks. Data was collected using a pre-and post test of Gates-McGinite Reading Test (GMRT) and were then converted into Normal Curve Equivalent (NCE) scores to compare students to others of the same current grade level. The GMRT scores were analyzed using a dependent two-tailed t-test with results that proved the program success showing significant (p<.001) gains. This supports small group instruction for struggling readers because the students showed a significant amount of growth within a short time period.

First graders were found to be successful when placed in small group settings as well as found by Mathes, Toregesen, Clancy-Menchetti, Santi, Nicholas, Robinson, and Grek (2003). Eighty-nine first graders out of 22 first grade classrooms of six different schools were selected because of poor oral reading fluency and phoneme segmentation skills to participate in a study of two intervention methods: PALS, a peer tutoring program and small group teacher directed
instruction. Of these 22 classrooms, the teachers were assigned to one of three groups: PALS, teacher directed small group, or comparison.

Students were pre-and post-tested using the WRMT-Revised and at baseline pre-test results, all three groups were tested for variance revealing no significant difference. At post-test, scores were evaluated using an ANOVA which showed a significant difference between small group instruction and comparison group, PALS and comparison group, but no significant difference between PALS and small group instruction. Small group instruction scores at post-test, however, did show more significant differences from the mean of the comparison group than PALS results. It can be inferred from this information that small group instruction is more beneficial than PALS or traditional regular classroom instruction (Mathes, et.al, 2003).

Layers of intervention for struggling readers were also found beneficial when the use of small groups was implemented. O’Connor, Fulmer, Harty, and Bell (2005) studied a layer 1 intervention group, requiring more professional development for teachers, layer 2 intervention group, which required more professional development coupled with required direct intervention in small groups, and a control group with struggling readers in K-3 grades for 4 years to monitor progress. A total of 90 subjects participated and were pre-and post-tested using the WRMT-Revised. An ANOVA examination revealed no significant differences at pre-test between the three groups, but at the end of the 4 year study, the outcome rendered a significant (p<.01) difference between layer 1 and control as well as between layer 2 and control. Although both layers showed a significant difference from the comparison group, layer 2 showed a greater difference implying that small group instruction is superior to the control classrooms in which only 30% of the teachers stated practicing small group instruction (O’Connor, Fulmer, 2005).
This section has addressed student achievement when small group instruction is implemented into intervention for struggling readers. Statistical significance is present in all studies reviewed for struggling readers favoring small group instruction as a successful method for intervention of struggling readers. Small group instruction has been presented as an applicable tool to use in the reading classroom to reach students of different levels.

**Small Group Instruction works for Students of Various Abilities**

Small group instruction helps readers at different levels as found by Kamps and Greenwood (2005) when examining second level intervention, meaning the same as layer 2 interventions as mentioned in the preceding study discussed, of first grade students. The subjects in the experimental and control groups contained students that were identified as at-risk and students identified as non-risk. The students in both groups were assessed using the DIBELS, and progress was documented over time. The results indicated that students receiving secondary level intervention showed larger gains in mean scores in nonsense word fluency (30) and oral reading fluency (14), than those in the comparison group (22, 11.7) on DIBELS scores. The students that were identified as non-risk showed greater gains than the students that were identified as at-risk (Kamps, Greenwood, 2005).

Small group instruction can be implemented as early as pre-school to find positive results. Connor, Morrison, and Sliminski (2006) examined 156 preschoolers, observed teaching methods used, and documented results to discover which activities were best for building various reading and emergent literacy skills. The observers documented how much time was spent in various types of activities, and documented student growth and achievement of letter recognition and alphabetic principle. The observers concluded that whole group instruction of play and
meaning activities increased vocabulary growth through interactions with peers, but small group instruction increased letter-word skill growth with a much larger effect size, close to ten-fold than did whole group instruction. Peer interaction could also take place in small groups, although in this setting it occurred in whole class activities, meaning if exposed to this in small groups, students may succeed also in vocabulary growth. This relates to all students because these students were not classified as struggling or efficient readers, but instead all students were observed.

**Whole Group Instruction Versus Small Group Instruction and Student Achievement**

Debarysh and Gorecki (2007) evaluated preschoolers who were divided into three groups: control, literacy conditions, and math conditions. The students in literacy conditions were taught by teachers receiving lesson plans that included excessive amounts of small group instruction in literacy skills. The study began with 126 participants but 26% were lost to attrition in which most of the students were requested to transfer to the literacy condition or math condition classrooms. The students were pre-tested and post-tested using various tools to assess phonemic awareness, and emergent writing. Students that participated in the literacy condition classrooms showed a more significant growth in phonemic awareness (p<.003, p<.001) and emergent writing (p<.001, p<.035) than did the comparison group and the math conditions group. This indicates that small group instruction in literacy proved to be more effective than in whole class instruction.

Chard and Kameenui (2005) also found supporting results of small group instruction. They conducted a study in which some students received only general education, some received general education plus Title One services, and others received title one services only for literacy
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Instruction. Trained observers spent time in the classroom observing the methods used to teach literacy and noted that students in the general education classroom participated in whole group instruction, while those in title one received smaller group instruction. The students that received only title one services exemplified a larger growth in mean between pre-and post-test of the WRMT-Revised, than students in the regular education classroom, especially in oral reading fluency means (6.84, 3.69). The problem with this study is that only 6 students received title one services only as compared to the 22 that received general education only, meaning the results needed a larger sample size to represent more external validity.

Small group instruction can also work with ELL students also as studied by Kamps, Abott, Greenwood, Arreaga-Mayor, and Wills (2007). This research design was conducted to examine effective instructional models for ELL students in first and second grade in the literacy classroom using small group instruction or whole group instruction. Two types of assessment tools were used at pre-and post-test: DIBELS and WRMT. An ANOVA test was run unveiling a significant (p=.000) growth on DIBELS in nonsense word fluency and a significant (p=.000) growth on WRMT scores. These results point toward evidence that small group instruction is more beneficial for the students.

Sometimes pre-and post-test scores are not the only indicator of academic success when studied in a case study that involved an elementary school which provided insight into what takes place in some literacy classrooms by Baker and Zigmond (1990).

Their research was conducted using teacher and parent surveys along with observations. The observers also analyzed grades and test score of students. Within the observations which included grades 1-5, literacy instruction was administered mainly and almost solely in whole
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group instruction and independent seat work. When grades were analyzed for these students, 17% of first graders were failing reading. This failing rate was not as high for the older grades, but at least two students per grade were receiving failing grades in reading. This supports the fact that some differentiated instruction should be implemented to ensure that all students achieve, and an appropriate method for implementing differentiated instruction is through the use of small groups.

Morrow and Smith (1990) studied kindergarten students in small group instruction and discovered that small group settings prevailed over other settings.

Story book reading to kindergarten and first grade students was investigated by Morrow and Smith with an underlying question of: Do students comprehend what is being read to them better in small group settings, one-to-one settings, or whole class settings. There were 27 students selected from five school districts that were tested in each setting. Within this story book reading investigation, the students were read to in each of the settings three times with books of similar length and difficulty, but were only evaluated on comprehension the third time in each setting with responses being analyzed using pre-determined criteria for correct and incorrect responses. To determine statistical significance between scores, an alpha level was set at .01 for analyzing results and a repeated-measures ANOVA was conducted revealing that small group setting scores were significantly higher than whole group scores or one-on-one scores. This supports the idea that small group instruction is more effective than whole class instruction in producing higher student achievement.
Application of Small Group in the Classroom

The biggest problem that teachers face when implementing small groups into the classroom is planning what the other students are going to be doing. A common way to solve this problem is having small guided reading groups while other students work in learning centers (King-Sears, 2005). As explained by King-Sears (2005), reading and writing is taught in guided reading, but these centers can enrich that and include activities with the same instruction for all students, but include differentiated reading and writing materials. In a survey conducted of teachers using guided reading groups, of the 1500 teachers surveyed, 72% said that they use centers for the students not involved in the guided reading (Ford & Optiz, 2008). Some teachers did note using this as time for independent seat work also, or a time when a teacher’s aide assists with the other students.

It seems that the most practical way to use small groups on a daily basis in which each student gets to participate in the small group, would be through the use of learning centers as independent activities because it is highly unlikely that all classrooms have a teacher’s aide or that students can do independent seatwork for an hour a day without causing discipline problems. Learning centers can be easy to implement if teachers get the discipline down. Students need to know how to manipulate each center and how to converge from one center to the next (King-Sears, 2007). Once students have the routine down, discipline issues will most likely decrease and small group instruction while other students are at learning centers will occur.

Future Research

Small group instruction in reading is a topic that has been researched by many, but more research should be conducted. There is not much research about small group instruction and
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gifted students, which would seem to be an applicable concept. This is a topic to consider for future research on small group instruction. Another topic that does not have much research is the use of small groups in secondary education settings. More research should also be conducted on the use of small group instruction focusing on all students and not as much on struggling students.

A more diverse sample size should be used to conduct the research topics listed above in order to provide more generalizeable results for small group instruction in reading. Most of the literature reviewed only dealt with one school district or in some cases one school, which gives insight, but for more valid results a more diverse sample size would be appropriate.

Conclusion

In conclusion, this review has discussed the effectiveness of small group instruction and the effectiveness of whole group instruction. This review has discussed how small group instruction can help struggling readers as well as all readers within the reading classroom. Small group instruction and whole group instruction have been compared and shown that of the research reviewed, small group instruction produces larger growth in reading on various reading assessments. The concept of small group instruction has also been applied to the classroom. This review has stated evidence and support of the practical and the critical need for small group instruction within the reading classroom. Future research suggestions have been indicated for the topic of small group reading instruction.
CHAPTER 3

METHODS

Participants

The participants of this study were chosen due to convenience because this research is being used to reflect upon personal teaching practices. The participants were students within my own classroom as well as students in the classroom next door. All participants were between ages five and six, Kindergarten students, and were chosen by pre-test data that they had lower pre-test scores than their peers. Three students were selected from each classroom. The research focuses on three students from each class and will exclude special education students as well as ESL students because the research focuses on struggling readers but not on special education or ESL students specifically. The school the research is being conducted in is a Title I school, but the research is not focused on SES levels. The participants from the whole group setting include two girls and one boy, the participants from the small group setting include one girl and two boys.

Measures

The pre-test and post-test are the same test. It is scored by how many sounds the child is hearing and if they are identifying those sounds correctly. For example, with the word lollypop, the student should write down something like lollepop because this how many sounds the child should be expected to hear when pronouncing the word. Each letter the student writes down correctly according to the sounds being heard is worth one point. The pre and post-test contains twelve words to spell: lollypop, sock, turtle, dog, kitten, monster, apple, window, rocket, king, ball, and candle. Each word the student is to spell has a picture beside of it and in administering
the test, the picture will be said aloud to the students. The test is worth 54 points (remember this is only counting the sounds being heard, not how many letters are actually in the word when it is spelled correctly).

**Designs**

The students were pre-tested and chosen due to pre-test scores being lower than that of their peers. There is a control group and a treatment group, the control group being exposed to only whole group instruction and the treatment group being exposed to only small group instruction on the topic of inventive spelling. Each class spent around 25 to 30 minutes on the topic a day including teaching and independent practice on the topic. The units being taught were similar in the presentation of the data, the main difference between the two being one is taught in whole group instruction and the other being taught in small group instruction. The unit plans are as follows:

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<td><strong>Small Group Reading</strong></td>
<td><strong>Title:</strong> Inventive Spelling</td>
<td><strong>Objective:</strong> TLW use sound stretching techniques to identify phonemes in spoken words in order to spell words inventively.</td>
<td><strong>Objective:</strong> TLW use sound stretching techniques to identify phonemes in spoken words in order to spell words inventively.</td>
<td><strong>Objective:</strong> TLW use sound stretching techniques to identify phonemes in spoken words in order to spell words inventively.</td>
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<td>Attempt to spell simple words using pre-to-early phonetic knowledge, sounds of the alphabet, and knowledge of letter names.</td>
<td>Attempt to spell simple words using pre-to-early phonetic knowledge, sounds of the alphabet, and knowledge of letter names.</td>
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| **Step by Step Procedures:**  
- sight word flashcards  
- Explain how to spell. Do some examples together, stretch the words out. Write the letters down that you hear. If you don't know what letter makes that sound, look up to the alphabet for help. Sound the word back out to see if it is the word you are trying to spell  
* Words to spell: cat, pot, sucker, blanket, pumpkin, dog, pig  | **Step by Step Procedures:**  
- Explain how to spell. Do some examples together, stretch the words out. Write the letters down that you hear. If you don't know what letter makes that sound, look up to the alphabet for help. Sound the word back out to see if it is the word you are trying to spell  
* Words to spell: top, wig, sit, tip, pit, alligator, hamburger, grapes, fox, and snake  | **Step by Step Procedures:**  
- Explain how to spell. Do some examples together, stretch the words out. Write the letters down that you hear. If you don't know what letter makes that sound, look up to the alphabet for help. Sound the word back out to see if it is the word you are trying to spell  
* Words to spell: deer, cake, cupcake, wet, job, pin, rat, basket, kiss, mom, and strawberry  | **Step by Step Procedures:**  
- Explain how to spell. Do some examples together, stretch the words out. Write the letters down that you hear. If you don't know what letter makes that sound, look up to the alphabet for help. Sound the word back out to see if it is the word you are trying to spell  
* Words to spell: man, pig, bat, candy, hand, pumpkin, bird, orange, dog, and sand  | **Step by Step Procedures:**  
- I will show the students a picture and allow them to try to spell the word. I will help the students with sounds that they are not hearing (ex. vowel sounds)  
- box, napkins, butter, bow, cot, cap, curtain, glass, trap, sit, sip, tip, and saturday. |
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| Assessment: | observation |
| Assessment: | observation |
| Assessment: | observation |
| Assessment: | observation |
| Materials: | flashcards, markerboards and markers |
| Materials: | markerboards and markers |
| Materials: | markerboards and markers |
| Materials: | flashcards, markerboards and markers |

#### Independent Literacy Center Practice for Small Group Instruction Classroom

| Title: | Inventive Spelling |
| Objective: | TLW practice inventive spelling of various objects. |
| Standards: | 0001.1.5 - Attempt to spell simple words using pre-to-early phonetic knowledge, sounds of the alphabet, and knowledge of letter names. |
| Step by Step Procedures: | The students will use stamps with different pictures on them. The students will stamp the pictures and spell underneath the pictures. |
| Assessment: | stamping and spelling |
| Materials: | -stamps |
| | -ink pads |
| | -paper |

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</tr>
<tr>
<td>- Explain how to spell by showing students how to stretch the words out. I will show them how to stretch them out and then sound the individual phonemes out for the students.</td>
<td>- Explain how to spell by showing students how to stretch the words out. I will show them how to stretch them out and then sound the individual phonemes out for the students.</td>
<td>- Explain how to spell by showing students how to stretch the words out. I will show them how to stretch them out and then sound the individual phonemes out for the students.</td>
<td>- Explain how to spell by showing students how to stretch the words out. I will show them how to stretch them out and then sound the individual phonemes out for the students.</td>
<td>- I will allow the students to practice the skill independently by using a flip chart on the promethean board with pictures on it for the students.</td>
</tr>
<tr>
<td>- I will Spell words for the students on the board allowing students to say the letter that corresponds to the sound. I will put pictures next to the</td>
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<td>- I will allow the students to practice the skill independently by using a flip chart on the promethean board with pictures on it for the students.</td>
</tr>
</tbody>
</table>

**Standards:**
0001.1.5 - Attempt to spell simple words using pre-to-early phonetic knowledge, sounds of the alphabet, and knowledge of letter names.

**Techniques to identify phonemes in spoken words in order to spell words inventively.**
words and write them correctly on the board.

words and write them correctly on the board.

practice this independently and I will walk around and check student's answers and help where help is needed.

practice the skill independently and will walk around and check each student's paper and help where help is needed.

to spell and will walk around and check each students paper and help where help is needed.

**Assessment:** observation

**Assessment:** observation

**Assessment:** observation

**Assessment:** observation

**Materials:** picture cards

**Materials:** picture cards

**Materials:** picture cards to put on the board for the students and I to spell

**Materials:** picture cards for the students and I to spell

**Materials:** picture cards for the students and I to spell

**Analysis**

At the close of both units, the six selected students will be post-tested using the same test and the scores will then be compared to that of the pre-test score in order to find the growth of each student. The growth scores will be averaged and compared by students that were exposed to small group instruction and the students that were exposed to whole group reading instruction.
CHAPTER 4

RESULTS

Whole Group Results

The students were numbered for identification purposes as student number 1, 2, and 3. Student numbers 1, 2, and 3 all received whole group instruction between pre-test and post-test on the topic of inventive spelling. The results are revealed by discussing each student’s pre and post test scores.

Student number 1 scored 12 points out of 54 possible points. On the pre-test, student number 1 spelled almost all of the items on the test by identifying the beginning sound with the exception of dog, which was spelled correctly. On the post-test, student number 1 received 32 points out of 54 showing a gain of 20 points between pre-test and post-test. The results of the post-test revealed that the student understood that there is more than one sound in each word. The student could also identify medial vowel sounds, which can be difficult for students that are beginning inventive spelling.

Student number 2 received 11 points on the pre-test. The student’s responses did not reveal an obvious pattern, such as the student was identifying beginning sounds only, but instead the student wrote down letters that were in different parts of the word, sounds that were from the beginning, middle, or end of the word. The student also spelled the word “cat” for kitten. Student number 2’s post test score was 18 points, showing a growth of 7 points. On the post-test a more apparent pattern was revealed in that the student was identifying beginning sounds and many ending sounds as well.
A Critical Review of Student Growth in Reading Skills using Small Group Instruction

The pre-test score for student number 3 was 12 points. Throughout the pre-test, student number 3 indicated many beginning sounds for the items as well as ending sounds. The student identified many medial consonants within the words, but was not very attentive to the medial vowel sounds. The post-test data for student number 3 revealed a score of 12 points, exhibiting a gain of zero. On the post-test student number three gave most attention to indicating the beginning sounds exclusively.

<table>
<thead>
<tr>
<th>Whole Group Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>Mean:</td>
</tr>
<tr>
<td>Standard Deviation:</td>
</tr>
</tbody>
</table>

Figure 1

The standard deviation for pre-test scores for the students receiving whole group instruction is very low, but for post-test scores the standard deviation is very high (see Figure 1). This demonstrates that the students all came in with similar test scores and left with varying test scores showing various gains between pre-test and post-test.

Small Group Results

The students that were exposed to small group instruction in inventive spelling are identified as student number 4, 5, and 6. Each student’s performance on pre-and post-test data is discussed individually.

Student number 4 was awarded 11 points on pre-test scores. Beginning sound assignment was the main focus for this student for the pre-test. On the post-test this student received 33 points demonstrating a growth of 22 points. Post-test responses revealed that the student could
spell words using beginning, middle, or ending consonant sounds as well as medial vowel sounds.

Pre-test data for student number 5 displayed an 11 point score with beginning sounds as the main tactic for spelling words. On post-test data, the student gained 32 points unveiling a cumulative score of 43 points. The post-test information indicated that the student could identify almost every phoneme in each word.

Last to be discussed is student number 6. Scores for this student were 12 on the pre-test and 32 on the post-test showing a gain of 20 points. Pre-test information demonstrated that the student could indicate beginning sounds in words while the post-test information demonstrated that the student could identify most consonant sounds in a word and a few medial vowel sounds. The student was using the technique of sound stretching the words, but couldn’t quite hear the vowels well enough to identify them within every spoken word on the assessment.

<table>
<thead>
<tr>
<th>Small Group Setting</th>
<th>Student</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Gains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>11</td>
<td>33</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>11</td>
<td>43</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>12</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>Mean</td>
<td>11.33333</td>
<td>36</td>
<td>24.66667</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.57735</td>
<td>6.082763</td>
<td>6.429101</td>
<td></td>
</tr>
</tbody>
</table>

The standard deviation for pre-test scores for the small group setting was low indicating that the scores were all similar (see Figure 2). The standard deviation for the post-test and gains was a little higher, but not as high as in the whole group setting. The growths and post-test scores were more consistent than that found in the whole group setting.
CHAPTER 5

DISCUSSION

Whole Group versus Small Group

Pre-test scores for the participants were similar with the students assigned to the whole group instructional setting showing a mean score of 11.67 and students assigned to the small group instructional setting showing a mean score of 11.33 demonstrating that the students came into the study with the same background knowledge of spelling. After instruction was received, the students then displayed a difference in their knowledge and application of inventive spelling. As shown in Figures 1 and 2, the students within the small group setting had higher mean scores on post-assessment and in points gained. For the purposes of this study it was evident that small group instruction as a whole was better for the group than whole group instruction. The students in the small group setting seemed to have a better grasp of how to spell as well as the application of the skill. The data of this study reflected that small group reading instruction is very effective for struggling readers and can be more beneficial than whole group reading instruction.

Limitations of this study

This study does not encompass a large sample size leaving the results less representative of a larger population. Both groups contained an outlier on post-test scores and gains leaving the mean and standard deviation skewed. Although the standard deviation for the small group instruction was lower than the standard deviation for whole group instruction, both were relatively high. If the outliers did not exist within the set of numbers, the mean and standard deviation would be more representative. Also if a larger sample size were considered within the study the outliers would not impact the results as tremendously.
Future Research

The review of literature and the action research of this study mainly addressed struggling readers and the effectiveness of small group instruction. I would like to conduct a study in which the topic of interest will be gifted students and small group instruction effectiveness. I did not find much research on this topic and would like to study this further.
References


Kamps, Debra; Abbott, Mary; Greenwood, Charles; Arreaga-Mayor, Carmen; Wills, Howard;


Mallette, Marla; Schreiber, James B.; Caffey, Crystal; Carpenter, Tina; and Hunter, Martha (2009). Exploring the value of a summer literacy program on the learning of at-risk adolescents, *Literacy Research and Instruction*, 48, 172-184.


Reynolds, Meree; Wheldall, Kevin; & Madelaine, Alison (2007). Meeting initial needs in literacy (MINILIT): Why we need it, how it works, and the results of pilot studies, *Australasian Journal of Special Education*, 31(2), 147-158.

Appendices
Appendix A

IRB consent Form From Carson-Newman College
October 14, 2010

Dear [Redacted],

The IRB Subcommittee of the Carson-Newman Graduate Committee has approved your IRB proposal for your project entitled “Student Growth in Reading Skills Using Small Group Instruction”. You may now proceed with data collection. If you have any questions, please feel free to contact me at 865-471-3236.

I wish you well with your research endeavors.

Sincerely,

[Redacted]

Chair, Institutional Review Board Subcommittee
Carson-Newman College, Graduate Committee
Appendix B

Parent Consent Form
Dear Parent/Guardian,

As part of completing my Master’s degree from Carson-Newman College as a Reading Specialist, I am conducting a research project on student growth in reading skills using small group instruction as opposed to whole group instruction. In order for me to conduct this research, I will need to teach my students along and if your child is not in my class they will be taught by their teacher on the topic of spelling. I will be teaching students using small group instruction while the other classroom will be taught using whole group instruction. If given permission, I will pre-test and post-test your child on the topic to see how much they learn during the week about spelling. I will use the results within my research paper and presentation to my class. YOUR CHILD’S NAME OR ANY OTHER IDENTIFYING DETAILS WILL NOT BE GIVEN OUT. I will only talk about the scores on the test between pre-test and post-test to explain the difference between reading instruction taught in small group settings and reading instruction taught in whole group settings. I would greatly appreciate your support in conducting my research project. By signing below you are giving permission for your child to be taught and tested for the purposes of this research project. Thank you so much for your time.

Sincerely,

X__________________________________________________

Yes, my child can participate and their name or other identifying details will not be given out or discussed within the research paper or presentation.
Appendix C

Pre- and Post-Test
Spelling Test

Name ____________________

1. ____________________

2. ____________________

3. ____________________
A Critical Review of Student Growth in Reading Skills using Small Group Instruction

10. [Image of a crown and a mustache] ____________________________

11. [Image of a beach ball] ____________________________

12. [Image of a candle] ____________________________