Increasing Reading Scores with the Use of Interventions

A Special Project

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FACULTY APPROVAL

Increasing Reading Scores with the Use of Interventions

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ABSTRACT

The purpose of the project was to examine the effects of reading interventions on students that tested two levels below grade level on the Basic Reading

Inventory assessment given in the fall of 2007. Four 3rd grade students were offered reading interventions in addition to whole group reading instruction.

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CHAPTER 1

Introduction

Background for the Project

The parochial P-8 school that was the setting for this study was located in an urban city in eastern Washington. In August of 2007, there were 255 students enrolled in preschool through eighth grade. The ethnicity of the school was 1 American Indian/Native Alaskan student, 5 Asian American students, 0 African American students, 99 Hispanic students, 2 Native Hawaiian/Pacific Islander students, 91 Caucasian students, and 57 Multi-Racial students. Twenty-five students qualified for Title 1 services (National Catholic Educational Association, 2007). The school did not offer free or reduced lunch, but if the school did offer such a program about a third of the student population would qualify.

In the 2006-2007 school year, the administration decided to discontinue the Washington Assessment of Student Learning due to funding issues. The school's Washington Assessment of Student Learning scores were higher than the surrounding schools and comparable to the state's scores when the assessment was administered. Instead the school continued to use the Iowa Test of Basic Skills for grades third through eighth. The school used the Basic Reading Inventory to assess students' reading abilities in the fall and spring of each school year. The collection of Basic Reading Inventory assessments was primarily designed to help teachers identify each student's independent, instructional, and frustration reading levels (Reading Assessment Database, 2007).

The reading program, *Open Court Reading*, was used in kindergarten through fourth grade to teach reading. "*Open Court Reading* is a research-based curriculum grounded in systematic, explicit instruction of phonemic awareness, phonics and word knowledge, comprehension skills and strategies, inquiry skills and strategies, and writing and language arts skills and strategies" (National Council of Teachers of English, 2007, p.1). In addition to the *Open Court Reading* series, some teachers at the school used literature units to teach reading.

The author had divided the third grade class into two groups for whole group reading instruction. The students were grouped based on reading ability and behavior. The groups were heterogeneous. The author worked with one group while another teacher instructed the other group. Both groups were instructed using the *Open Court* curriculum. In addition to the whole groups, the author worked with small groups while the rest of the class read silently. The small groups consisted of four students that performed at the same reading level. The author worked with the four participants three days a week for half an hour. One of the participants received additional tutoring two days a week for half an hour from a fellow teacher. The author selected one group as the focus of this study.

The author attended a workshop on Response to Intervention in November 2007. The workshop provided various intervention techniques that were to be used in regular education classrooms. The author implemented the interventions learned from the workshop with the four students.

Statement of the Problem

In the fall of 2007, four third grade students tested two grade levels below on the Basic Reading Inventory assessment. The *No Child Left Behind Act* stated ninety percent of third graders were to be reading at grade level. The students needed to meet grade level benchmarks by the end of the year. The author wanted to know if the use of interventions would help students improve by one level as measured by the Basic Reading Inventory by the winter of 2008.

Purpose of the Project

The purpose of the project was to examine the use of interventions on students that performed two levels below grade level. The study was performed on four third grade students. The author predicted the four students' reading scores would improve from fall to winter with the use of interventions. The importance of the project was to determine whether the use of interventions would increase students' reading scores.

Delimitations

The project involved four third grade students from the elementary school. The project was conducted between the time period of September 2007 and February 2008.

The school provided materials for the whole group *Open Court* curriculum. The *Open Court* materials the school supplied were teacher guides, student books, decodable books, and blending and sight word cards. In addition, the author made a binder of overheads and handouts as supplemental material to the *Open Court* series. The author also provided supplies for the two literature

units, such as books, quizzes, and handouts.

Behavioral issues were delimitations. Over half the class population had behavior problems. The class had behavioral issues since kindergarten. The author found that a majority of the classroom time was used to address discipline issues. Therefore, the author did not have a lot of extra time to work with struggling students.

An additional delimitation was the lack of resources. The author had to supply the materials for the literature units and interventions. The only additional help the author received was from a teacher aide that instructed one of the reading groups and tutored one of the students in the study two days per week.

<u>Assumptions</u>

The author understood the *Open Court* curriculum and appropriately used the material with the third grade students. The author believed the *Open Court* curriculum to be an effective reading program. The author attended a workshop on Response to Intervention and used the material properly with the participants.

The author assessed the third grade students and knew the four students that tested below grade level. The interventions were used on students that did not meet grade level benchmarks. The author believed the interventions were appropriate to use on the struggling students.

The author was familiar with the Grade Level Expectations. The author referred to the Grade Level Expectations when planning reading lessons and knew Grade Level Expectations the struggling students needed to achieve in reading.

Hypothesis

The reading scores of four 3rd grade students will improve from two levels below grade level to one level below grade level as measured by the Basic Reading Inventory assessments because of the use of reading interventions.

Null Hypothesis

The reading scores of four 3rd grade students will not improve from two levels below grade level to one level below grade level as measured by the Basic Reading Inventory assessments because of the use of reading interventions.

Significance of the Project

Many educators were concerned with the growing number of students that struggled in reading. The author understood the importance of third grade students being fluent, competent readers in order to succeed in future grades. The author knew that students that were not fluent readers by the end of the year were unlikely to achieve grade level expectations.

Procedure

In the fall of 2007, the author used the Basic Reading Inventory to assess all third grade students. The assessments were kept in a labeled, organized binder. The author found that four of the students were two grade levels below.

The third grade class was divided into two reading groups. The students were separated into groups based on reading ability and behavior. The groups were heterogeneous. The author instructed one group, while the teacher assistant taught the other. Both groups were instructed using the *Open Court* curriculum and literature units.

In addition to the *Open Court* curriculum, the four students were instructed in a small group setting. The small group instruction took place three times a week for half an hour while the rest of the class read silently. During small group instruction the teacher used interventions with the students. The interventions utilized were from the Response to Intervention workshop. One student received additional help twice a week for half an hour from the teacher assistant. The student was also referred to the school district to be assessed for special education services. The author used the interventions in the small group throughout the school year.

Definition of Terms

<u>Basic Reading Inventory.</u> Basic Reading Inventory was a book that contained a collection of early literacy assessments for young students as well as reading comprehension and competence assessments for older students.

<u>heterogeneous grouping.</u> Heterogeneous grouping was a practice used to group students of varied academic levels of instruction.

Open Court. Open Court Reading was a research-based curriculum grounded in systematic, explicit instruction of phonemic awareness, phonics and word knowledge, comprehension skills and strategies, inquiry skills and strategies, and writing and language arts skills and strategies.

Response to Intervention. Response to Intervention was a method that used carefully documented teaching to determine how much and under what conditions a child learned.

Acronyms

BRI. Basic Reading Inventory

GLE. Grade Level Expectations

<u>ITBS.</u> Iowa Test of Basic Skills

NCLB. No Child Left Behind

<u>RiT.</u> Response to Intervention

WASL. Washington Assessment of Student Learning

CHAPTER 2

Review of Selected Literature

Introduction

Literature selections discussed were the No Child Left Behind Act (NCLB), history of reading, reading fluency, components of reading instruction, *Open Court*, reading interventions, and parent involvement. The research first focused on NCLB, the history of reading, reading fluency, and components of reading to emphasize the importance of every child being literate. The reading curriculum, *Open Court*, used in the third grade classroom, was also discussed. Finally, the literature review focused on the reading interventions and parent involvement that had an effect on a child's reading success.

No Child Left Behind (NCLB)

The No Child Left Behind Act was passed in 2001. NCLB was defined as "A United States federal law that reauthorized a number of federal programs aiming to improve the performance of U.S. schools by increasing the standards of accountability for states, school districts, and schools" (No Child Left Behind Act, 2007, p.1). NCLB also promoted an increased focus on reading.

NCLB was committed to ensuring that every child was reading by the third grade (No Child Left Behind Act, 2007). In order to meet the goal, the "Reading First" program was implemented. The National Reading Panel stated the following:

Effective reading instruction includes teaching children to break apart and manipulate the sounds in words (phonemic awareness), teaching them that

these sounds represented by letters of the alphabet which can then be blended together to form words (phonics), having them practice what they have learned by reading aloud with guidance and feedback (guided oral reading), and applying reading comprehension strategies to guide and improve reading comprehension. (No Child Left Behind Act, 2000, p. 10)

The *Reading First* initiative due to the findings had invested in scientifically-based reading instruction programs in the primary grades. Students that received effective reading instruction were less likely to struggle in reading.

History of Reading

The two ways used to teach reading were phonics and whole language. Children were first taught to read by learning the alphabet, the sounds the letters made, blending sounds into syllables, and how syllables made up words (Sweet, Jr., 1996). Then in 1837, Horace Mann proposed a new method to teach reading. The method first taught to deaf children was the memorization of whole words also known as "look and say" (Sweet, Jr., 1996). In 1930, William S. Gray and Arthur I. Gates introduced another approach called basal reading. Basal reading was a series of books that focused on children memorizing whole words (Sweet, Jr., 1996). Since the 1960s, some studies have shown the harm of the whole language approach, and some schools replaced the approach with phonics. Other schools still used the whole language approach and others combined the two.

Reading Fluency

Fluency was defined as the ability to read a text accurately and quickly

(Put Reading First, 2006). Another author defined fluency as the ability to read aloud expressively and with understanding (Blau, 2006). Fluent readers were able to read words, use expression, and comprehend at the same time. The importance of fluency was a link between word recognition and comprehension. Fluency changed over time based on the material students were reading, familiarity with the words, and the amount the students were reading.

A study performed by the National Assessment of Educational Progress found the students that scored lower on measures of fluency also scored lower on measures of comprehension. Another study found a strong connection between reading ability and how much a student read (Put Reading First, 2006). Two major instructional approaches utilized were repeated reading and independent silent reading. The author stated repeated and monitored oral reading improved fluency and overall reading achievement (Put Reading First, 2006). Research has not shown whether independent silent reading has improved or had no effect on reading achievement and fluency.

Strategies that teachers used to increase fluency were student-adult reading, choral reading, tape-assisted reading, partner reading, and readers' theatre. The most important strategy used was modeling fluent reading. The teacher modeled fluent reading and then asked the students questions about how fluent reading was demonstrated. Students had to first hear and understand what fluent reading sounded like in order to read fluently (Blau, 2006).

Components of Reading Instruction

According to Spear-Swerling, the five key reading-related abilities that

should be addressed at the primary level were: phonemic awareness, phonics knowledge, fluency, vocabulary, and comprehension (Spear-Swerling, 2005). The National Reading Panel's five components of reading instruction were also phonemic awareness, phonics, knowledge, fluency, vocabulary, and text comprehension (National Reading Panel, 2008). Another author stated there were nine components of effective reading instruction, which were phonemic awareness, letter knowledge, and concepts of print; the alphabetic code: phonics and decoding; fluent, automatic reading of text; vocabulary; text comprehension; written expression; spelling and handwriting; screening and continuous assessment to inform instruction; and motivating children to read and developing their literacy horizons (Learning First Alliance, 2000).

Educators agreed about the need for instruction to address certain key abilities involved in learning to read. The importance of different reading-related abilities changed based on the grade level and stage of development in reading. Up through third grade, children learned to read. After third grade, children read to learn.

Reading instruction was explicit and systematic. "Explicit means that important skills and types of knowledge are taught directly by the teacher; children are not expected to infer key skills and knowledge only from exposure or incidental learning opportunities. Systematic means that there is a planned and logical sequence of instruction" (Spear-Swerling, 2005, p. 1). Successful reading instruction was seen when all students were motivated and engaged. The students had access to a variety of books on various topics and reading levels. The students

had opportunities to read books that were interesting and shared books with fellow classmates.

"Failure to master phonics is the number one reason that children have difficulty learning to read" (National Reading Panel, 2008, p. 2). A successful reading program included both explicit phonics instruction and comprehension instruction. "One without the other can delay or impede success in learning how to read" (National Reading Panel, 2008, p. 2).

Open Court Reading Curriculum

The *Open Court* reading curriculum was a core language arts series used in a large number of elementary classrooms (*Open Court* reading, 2007). "*Open Court Reading* is a research-based curriculum grounded in systematic, explicit instruction of phonemic awareness, phonics and word knowledge, comprehension skills and strategies, inquiry skills and strategies, and writing and language arts skills and strategies" (National Council of Teachers of English, 2007, p. 1).

There was both praise and criticism of the *Open Court* program among educators. "Proponents of *Open Court* reading believe that its focus on phonics and reading comprehension strategy use, both taught with very explicit instruction, benefit children. Some critics dislike the explicit nature of instruction, suggesting that it leaves little room for child exploration or teacher creativity, as constructivist models of reading instruction such as whole language" (*Open Court* reading, 2007, p. 1). Literacy Leadership also stated, "It is a rigid, scripted program that leaves little time for any individualization or differentiation" (Literacy Leadership, 2007, p. 2).

Reading Interventions

Response to Intervention was a program created to aid students who did not qualify for special education, but needed assistance in order to function in a general education classroom. RtI was a method of using carefully documented teaching to determine how much and under what conditions a child learns (Goodman, 2007). "RtI is the practice of providing high quality instruction and intervention matched to student need; monitoring progress frequently to make decisions about change in instruction or goals; and applying child response data to important educational decisions" (Goodman, 2007, p. 3).

Response to Intervention used a three tier model. Tier one was the universal interventions, such as the core reading program, which all students received. Tier two was targeted group intervention, which fifteen percent of the class received. Tier three was intense intervention, which targeted only one to five percent of the class. If a student was in tier three and did not increase skills, then the student was recommended for special education.

The author used the *Open Court* reading curriculum for tier one. The whole third grade class was in tier one. Tier two and tier three were groups of four students who were grouped by same ability. The strategies the author used at tier two and tier three were sound cards, chants, fluency boxes, highlighting strips, sight words, bingo, and choral reading. The advantages of RtI were to provide assistance to neediest children in a timely fashion; ensure that poor academic performance was not due to poor instruction; closely link assessments and

interventions; and ensure that treatment resisters were not given stigmatizing labels (Goodman, 2007).

Another intervention method used was Direct Instruction. "Direct Instruction is a highly structured instructional approach, designed to accelerate the learning of at-risk students" (American Federation of Teachers, 1999, p. 3). The *Open Court* reading curriculum used Direct Instruction. The curriculum contained scripted lesson plans, research-based curriculum, and frequent assessments, which were the main features of the Direct Instruction approach.

Parent Involvement

When parents spent time reading with their children, the children's learning was influenced significantly. "Experts in child literacy are unanimous in their belief that parents should read with their children. The power of the parent-child bond has a positive effect on a child's attitude toward reading and his ability to read" (GreatSchools.net Staff, 2007 p. 1). The author required students to read at home for at least twenty minutes a day. The children either read to someone or were read to. One of the biggest mistakes parents made was to stop reading to their child. When parents took turns at reading, the parents let the child enjoy books that were beyond the child's independent reading level and built the child's vocabulary by exposing the child to new words. Reading aloud was a way for parents to model reading smoothly and with expression (GreatSchools.net Staff, 2007). The parents had to sign the student's reading log.

"The benefits to children whose parents are involved in the educational process are well-known: substantial research links family involvement to both

academic and social success of children at school" (Liontos, 1991, p. 1). Students spent about seventy percent of their time outside of school. Parental involvement was crucial to student success. Researchers have shown that parent involvement led to students who had: higher self-esteem; better school attendance; higher grades, test scores, and graduation rates; increased motivation; lower rates of suspension and expulsion; decreased use of alcohol and drugs; and fewer instances of violent behavior (National Education Association, 2002-2008).

The author discussed the No Child Left Behind Act, the components included in the act, and the *Reading First* initiative. The history of reading and the two approaches used to teach reading, phonics and whole language, were also reviewed. Components of reading instruction and reading fluency were important topics because the focus of the study was on reading improvement. *Open Court* reading curriculum was the curriculum the author used in the classroom. A variety of reading interventions were reviewed along with parent involvement.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The Basic Reading Inventory was given to determine third grade reading scores in the fall of 2007. Four students scored two levels below grade level. The students received interventions to improve reading fluency and comprehension.

The students were reassessed again in the winter of 2008 using the BRI to determine if the students' reading scores increased.

Methodology

The author used a quantitative approach for the research method. "Quantitative research is the collection and analysis of numerical data in order to explain, predict, and/or control phenomena of interest" (Gay, Mills, & Airasian, 2006, p. 9). The BRI was given to each student in the third grade class at the beginning of the school year. Four students scored two levels below grade level. The four students received various interventions to improve reading scores. The students were reassessed five months later. The author used the one group pretest/posttest design. "The one-group pretest-posttest design involves a single group that is pretested (O), exposed to a treatment (X), and posttested (O). The success of the treatment is determined by comparing pretest and posttest scores (Gay et. al., 2006, p. 251).

Participants

The participants for the study were four students who scored two levels below grade level. The BRI was used to determine the reading levels of the

students.

Student one was constantly distracted and had a hard time staying on the task at hand. Focus and time management were difficulties for student one.

Student two was recommended by the author to be assessed by the public school district. The public school district found the student to be at a first grade level. Student two qualified to receive special services based on a communication disorder. The student's family spoke Spanish at home, but the school district found that the student did not have one language that was stronger than the other. Student two struggled with the reading basics and was not an independent learner.

Student three had difficulties with all components of reading. The student's family did not read outside of school. Student three had eye vision problems and often forgot to wear glasses. The student also struggled with writing and the author had difficulties understanding the student's writing and would often have to ask for clarification.

Student four also had difficulties with all components of reading, especially letter sounds and phonics. The student's family only spoke Spanish at home. Student four's writing was illegible and the author had to ask the student for clarification. Testing from health screenings found the student to have troubling with hearing. The author had suggested to the family to have student four rescreen to diagnose the hearing problem.

Instruments

The author used the BRI to assess students' reading scores in September and again in February. The BRI was a reliable and valid assessment, but the school in

which the study took place did not professionally train the teachers on how to administer the BRI. Validity was defined as "the degree to which a test measures what it is supposed to measure. Validity tells test users about the appropriateness of a test" (Gay et. al., 2006, p. 134). "Reliability is the degree to which a test consistently measures whatever it is measuring" (Gay et. al., 2006, p. 139).

Design

The author used the Basic Reading Inventory to do a pretest/posttest for the design method. "The one-group pretest-posttest design involves a single group that is pretested (O), exposed to a treatment (X), and posttested (O). The success of the treatment is determined by comparing pretest and posttest scores (Gay et. al., 2006, p. 251). The BRI was administered in the fall of 2007 to twenty students in the third grade class as a pretest. Based on the results four students scored two levels below grade level. The four students received various reading interventions from September through February. The interventions were individualized based on each student's needs. In the winter of 2008 the BRI was administered again as a posttest to determine the students' growth.

Procedure

In the fall of 2007, the author used the Basic Reading Inventory to assess all third grade students. The assessments were kept in a labeled, organized binder. The author found that four of the students were two grade levels below.

The third grade class was divided into two reading groups. The students were separated into groups based on reading ability and behavior. The author

instructed one group, while the teacher assistant taught the other. Both groups were instructed using the *Open Court* curriculum and literature units.

In addition to the *Open Court* curriculum, the four students were instructed in a small group setting. The small group instruction took place three times a week for half an hour while the rest of the class read silently. During small group instruction the teacher used interventions with the students. The interventions utilized were presented at the Response to Intervention workshop. One student received additional help twice a week for half an hour from the teacher assistant. The student was also referred to the school district to be assessed for special education services. The author used the interventions in the small group throughout the school year.

Treatment of the Data

In the fall the BRI assessments were recorded of the participants. In the winter, the four participants were reassessed and the results were recorded. A graph was created of the participants' assessments showing total number of miscues, significant miscues, and questions missed for the fall and winter.

Summary

Four students scored two levels below grade level according to the BRI assessment. The students received various interventions from September through February. The BRI was administered again five months later to determine if the students' reading scores improved.

CHAPTER 4

Analysis of the Data

Introduction

The Basic Reading Inventory was given to determine third grade reading scores in the fall of 2007. Four students scored two levels below grade level. The students received interventions to improve reading fluency and comprehension. The students were reassessed again in the winter of 2008 using the BRI to determine if the students' reading scores increased. Data was collected to show students' progress.

Description of the Environment

The project involved four third grade students from the elementary school. The project was conducted between the time period of September 2007 and February 2008.

The school provided materials for the whole group *Open Court* curriculum. The *Open Court* materials the school supplied were teacher guides, student books, decodable books, and blending and sight word cards. In addition, the author made a binder of overheads and handouts as supplemental material to the *Open Court* series. The author also provided supplies for the two literature units, such as books, quizzes, and handouts.

Behavioral issues were a parameter. Over half the class population had behavior problems. The class had behavioral issues since kindergarten. The author found that a majority of the classroom time was used to address discipline

issues. Therefore, the author did not have a lot of extra time to work with struggling students.

An additional parameter was the lack of resources. The author had to supply the materials for the literature units and interventions. The only additional help the author received was from a teacher aide that instructed one of the reading groups and tutored one of the students in the study two days per week.

Hypothesis

The reading scores of four 3rd grade students will improve from two levels below grade level to one level below grade level as measured by the Basic Reading Inventory assessments because of the use of interventions.

Tables 1 and 2 showed data on the BRI pretest and posttest. The tables supported the hypothesis. Tables 1 and 2 showed the number of errors decreased with the use of interventions on the posttest.

Null Hypothesis

The reading scores of four 3rd grade students will not improve from two levels below grade level to one level below grade level as measured by the Basic Reading Inventory assessments because of the use of interventions.

The author analyzed the data and noticed the decrease in the number of errors. The data showed the number of errors decreased from the pretest to the posttest with the use of interventions. The null hypothesis was rejected.

Results of the Study

Table 1

Fall 2007 Basic Reading Inventory
First Grade Level

Errors	Total Miscues	Significant	Number of
		Miscues	Questions Missed
Student One	3	4	1
Student Two	3	5	1
Student Three	10	3	1
Student Four	9	6	2.5

The author entered the number of errors for the BRI pretest into Table 1.

The pretest took place in the fall of 2007 and was based on the first grade reading level. Table 1 showed the number of total miscues, significant miscues, and number of questions missed by the four participants.

Table 2

Winter 2008 Basic Reading Inventory
First Grade Level

Errors	Total Miscues	Significant	Number of
		Miscues	Questions Missed
Student One	6	1	0
Student Two	5	3	2.5
Student Three	0	0	0.5
Student Four	5	2	1

The author entered in the number of errors for the BRI posttest into Table 2. The posttest took place in the winter of 2008 and was based on the first grade reading level. Table 2 showed the number of total miscues, significant miscues, and number of questions missed by the four participants. When the data in Table 2 was compared to the data in Table 1, the number of errors had decreased.

Table 3

Word Recognition Scoring Guide		
Total Miscues	Level	Significant
		Miscues
0-1	Independent	0-1
2-4	Ind./Inst.	2
5	Instructional	3
6-9	Inst./Frust.	4
10+	Frustration	5+

Table 3 was the word recognition scoring guide from the BRI assessment. Table 3 showed the scoring guide for the number of total miscues and significant miscues. The data indicated the participants were at a first grade level in the fall of 2007. The participants were at a second grade level in the winter of 2008.

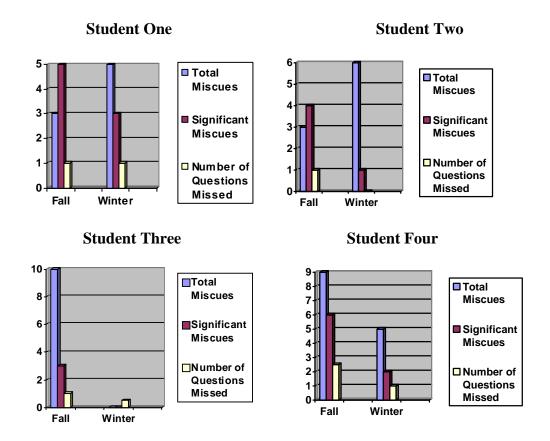
Table 4

Comprehension Scoring Guide		
Questions Missed	Level	
0-1	Independent	
1.5-2	Ind./Inst.	
2.5	Instructional	
3-4.5	Inst./Frust.	
5+	Frustration	

Table 4 was the comprehension scoring guide from the BRI assessment.

Table 4 showed the scoring guide for the number of questions missed. The author used the table to determine the number of questions missed and found a decrease from the pretest to the posttest.

Figures 1



Figures 1 were configured from Tables 1 and 2. Figures 1 were the four students' pretest and posttest scores. Figures 1 showed the number of total miscues, significant miscues, and number of questions missed for the BRI pretest and posttest. Figures 1 showed the four participants' number of errors had decreased from the fall of 2007 to the winter of 2008.

Findings

Based on the BRI assessments, the author determined that the reading scores of all participants increased. All four students increased by one grade level as stated in the hypothesis. Student one and student two showed the least amount of growth. Although the significant miscues for both students decreased, the amount of total miscues increased. Both students still struggled with reading fluency.

Discussion

The project was done to determine whether the use of interventions would increase the reading scores of the students that were performing two levels below grade level according to the BRI assessments. The BRI was given at the beginning of the school year to determine the students' reading levels. After the use of various reading interventions, the students were reassessed using the BRI to see if the scores had improved. Based on the BRI results the students had improved by one grade level from the fall to winter timeframe. The hypothesis was proven to be true.

Summary

The use of reading interventions was given to four students that scored two levels below grade level to see if the interventions would improve reading scores. The BRI was given as a pretest and posttest to determine reading scores. The scores which included total miscues, significant miscues, and number of questions missed were recorded in a chart to show growth. The author added the word recognition and comprehension scoring guides to show where the students scored. After analyzing the charts, the author determined the hypothesis to be

true. The students were able to improve reading scores based on the use of reading interventions. All four students improved by one grade level from the fall to the winter of the school year.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

The purpose, procedure, and results of the project were discussed. Based on the results, the study was successful. The BRI pretest and posttest showed the four participants' reading scores increased with the use of interventions. The author made conclusions and recommendations based on the data of the study. Summary

The purpose of the project was to examine if the use of reading interventions on four students performing two levels below grade would increase scores to one level below grade level from the fall of 2007 to the winter of 2008. The Basic Reading Inventory was used to assess students as a pretest and posttest method.

The procedure of the project was to assess the students in the fall of 2007 using the BRI as a pretest. Four students were found to be performing two grade levels before grade level. The author used various reading inventions with the four participants within a five month period. The reading inventions were used in addition to *Open Court* reading curriculum. The four participants were reassessed in the winter of 2008 using the BRI as a posttest.

The results of the project were the four participants' reading scores had increased from the fall of 2007 to the winter of 2008. The students increased reading scores from two levels below grade level to one level below grade level.

The use of reading interventions was proven successful in increasing reading scores.

Conclusions

Based on the BRI assessments, the author determined that the reading scores of all participants increased. All four students increased by one grade level as stated in the hypothesis. Tables 1 and 2 showed data on the BRI pretest and posttest. The tables supported the hypothesis. Tables 1 and 2 showed the number of errors decreased with the use of interventions from the pretest to the posttest.

Recommendations

Based on the conclusions in this study, the use of reading interventions was successful. The interventions improved the reading scores. The author also used interventions with other groups of students and therefore, there was no control group. The study was small and would need to be replicated to determine whether the success evidenced in the study was because of the interventions, the *Open Court* reading curriculum, or simply expected maturation of the students. This study was only a small beginning.

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