

Relationship Between Small Group *Read Well* End-of-Unit Six and Ten  
Assessments as Measured by the Words Correct per Minute Fluency Scores

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A Special Project

Presented to

Dr. Audrian Huff

Heritage College

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In Partial Fulfillment  
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Masters of Education

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FACULTY APPROVAL

Relationship Between Small Group *Read Well* End-of-Unit Six and Ten  
Assessments as Measured by the Words Correct per Minute Fluency Scores

Approved for the Faculty

\_\_\_\_\_, Faculty Advisor

## ABSTRACT

The purpose of the project was to examine if kindergarten students had shown a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The pretest the author used was small group end-of-unit six assessment. The posttest was small group end-of-unit ten assessment. The scatterplot graph showed there was a high positive correlation between small group *Read Well* end-of-unit six and ten assessments as measured by the wcpm fluency scores. After the data was analyzed, the author found a high positive correlation between end-of-unit six and ten assessments as measured by the wcpm fluency scores.

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## TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	i
ABSTRACT.....	.ii
PERMISSION TO STORE.....	.iii
TABLE OF CONTENTS.....	.iv
LIST OF FIGURE .....	.vii
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	4
Purpose of the Project.....	4
Delimitations.....	5
Assumptions.....	6
Hypothesis.....	7
Null Hypothesis.....	7
Significance of the Project.....	8
Procedure.....	8
Definition of Terms.....	10
Acronyms.....	11

	Page
CHAPTER 2.....	12
Review of Selected Literature.....	12
Introduction.....	12
No Child Left Behind (NCLB).....	12
Reading Fluency.....	13
Read Well.....	15
Intervention.....	16
Summary.....	17
CHAPTER 3.....	19
Methodology and Treatment of Data.....	19
Introduction.....	19
Methodology.....	19
Participants.....	19
Instruments.....	19
Design.....	20
Procedure.....	21
Treatment of the Data.....	22
Summary.....	22

	Page
CHAPTER 4.....	23
Analysis of the Data.....	23
Introduction.....	23
Description of the Environment.....	23
Hypothesis/Research Question .....	24
Null Hypothesis.....	25
Results of the Study.....	26
Findings.....	27
Discussion.....	27
Summary.....	28
CHAPTER 5.....	29
Summary, Conclusions and Recommendations.....	29
Summary.....	29
Conclusions.....	31
Recommendations.....	31
REFERENCES .....	33
APPENDIX .....	35

LIST OF FIGURE

	Page
Figure 1, Relationship Between Unit 6 wcpm and Unit 10 wcpm.....	26



## CHAPTER 1

### Introduction

#### Background for the Project

The elementary school was located between Seattle and Spokane, in the center of the Columbia Basin. Agriculture continued to be the biggest part of the economy. The elementary school was chosen as a Blue Ribbon School in the 2003-2004 school year, along with four other schools statewide (“Office of Superintendent of Public Instruction: Education Awards,” 2007).

In October 2004, there were 480 students enrolled in grades K-5 in the elementary school. The ethnicity of the elementary school was broken down into 57.7% White, 38.1% Hispanic, 1.7% Black, 1.5% American Indian, and 1% Asian. In May 2005, 68.8% of students received free or reduced meals. Migrant students made up 12.9% of the school population, along with 15.5% transitional bilingual students, and 14.5% special education students (“Report Card,” 2006).

In the year 2004-2005, the fourth grade students from the elementary school made significant growth in reading on the Washington Assessment of Student Learning. In 2003-2004, 57.1% of fourth grade students passed the reading portion of the WASL. In 2004-2005, 85.7% of students passed the reading portion. In mathematics, there was significant growth again by the fourth grade students. In the year 2003-2004, 42.9% of students passed the mathematics section compared to 72.7% in the year 2004-2005. In writing, there was very

little growth from the year 2003-2004 to 2004-2005. The writing percentages ranged from 41.3% to 44.2%. The writing scores have stayed almost constant over the last three years (“Report Card,” 2006).

There were two different reading programs the elementary school used to teach reading and one instructional approach. *Read Well* was a reading program the school used for grades kindergarten through second. *Harcourt Brace* was a reading program the school used for grades first through fifth. The school also used the Walk to Read method for grades first through fourth. In third grade, there were two teachers who had chosen not to do Walk to Read.

The *Read Well* program used a direct instruction approach. “*Read Well* combines two complementary components: age-appropriate whole class activities and small group instruction that meets individual student needs” (“Read Well is Designed for Success,” 2006, p.2). The program was designed to teach students phonemic awareness skills, phonics, letter names and sounds, and other reading skills and strategies. The small group *Read Well* program was intended for students to master the skills and concepts within the unit before being moved on to the next unit.

The research base for *Read Well* reflected early reading acquisition such as in the findings of the National Research Council. “*Read Well* addresses the major research-based components of reading articulated by the National Research

Council and, specifically, in the 1999 Reading Excellence Act” (“Research,” 2006, p.1).

*Harcourt Brace* was a reading program designed for when students graduated from the *Read Well* program. The school used the Trophies series of the *Harcourt Brace* program. Occasionally students started the *Harcourt Brace* reading program in first grade, while other students started the program in second or even third grade. *Harcourt Brace* used more of a basal approach to reading. Teacher-guided questions were included throughout the units. *Harcourt Brace* and *Read Well* were designed very differently. *Harcourt Brace* was a basal approach and *Read Well* was a direct instruction approach.

There was research to support the Trophies series of the *Harcourt Brace* reading curriculum. “Trophies is a research-based, developmental reading/language arts program” (“Harcourt Trophies,” 2006, p. 1). The Trophies series included multiple reading strategies such as explicit phonics instruction, direct reading instruction, guided reading strategies, phonemic awareness instruction, intervention strategies, and assessments tools. The numerous reading strategies and skills ensured every student learned to read (“Harcourt Trophies,” 2006).

The Walk to Read approach the school used for grades first through fourth was intended to support students in reading the best way possible. The program involved placing students in the appropriate reading group by ability

levels. “Ability grouping is the practice of dividing students for instruction on the basis of their perceived capacities for learning” (“Ability Grouping,” 2002, p.1). The reading groups were designed to meet the needs of the students. Sometimes the students might not have been in a reading group with the homeroom teacher.

There was research supporting ability grouping. “In general, the research suggests that the effects of ability grouping on student achievement depend on the type of grouping arrangement” (“Westchester Institute for Human Services Research,” 2002, p.2). The school used a type of grouping arrangement known as the between-class grouping for particular subjects. “The between-class grouping for particular subjects, such as reading can produce greater achievement gains than mixed-ability groups if the level and pace of instruction are adapted to students’ needs” (“Westchester Institute for Human Services Research,” 2002, p.3).

### Statement of the Problem

The kindergarten students will show a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute (wcpm) fluency scores. The students were measured on units six and ten. The time period was from December 2005 through June 2006.

### Purpose of the Project

The purpose of the project was to examine if kindergarten students had shown a relationship between the small group *Read Well* end-of-unit six and ten

assessments as measured by the words correct per minute fluency scores. The study was performed on 21 kindergarten students. The author predicted kindergarten students had shown a relationship between the small group *Read Well* fluency scores in units six and ten. The importance of the relationship between the small group *Read Well* fluency scores in units six and ten demonstrated how the kindergarten students maintained similar fluency scores.

### Delimitations

The project involved 21 kindergarten students from the elementary school. The project was conducted between the time period of December 2005 and June 2006.

The district provided materials used for the small group *Read Well* curriculum. The educator applied the materials in the most efficient and correct manner possible. The materials the district supplied were the *Read Well* curriculum, such as teacher guides, storybooks, magazines, blending cards, and word and picture cards. Additional materials included were black line masters for small group activities and multiple intervention ideas for reteaching students.

Maturation issues were a delimitation. The time period when the kindergarten students were assessed was from December 2005 to June 2006. The students were more successful at passing the end of the unit assessments toward spring because the students were farther along with reading progress. In contrast,

if students were to demonstrate regression toward spring because of maturation issues, then the students were still not maturely developed enough to be readers.

An additional delimitation was the number of students. The author conducted the project on 21 kindergarten students. The author had to be very organized in the way the data was collected. At the end of a unit, the educator assessed the students in the classroom. The students felt comfortable in the classroom; however, at certain times, the classroom was quite noisy when students were busily working at the desks.

### Assumptions

The author knew the material and appropriately used the material with the kindergarten students. The author was trained in the kindergarten whole group and small group *Read Well* programs. The author was trained to teach small reading groups to kindergarten students. The author was familiar and comfortable with the *Read Well* curriculum.

Intervention was used by the author when necessary. The author knew when intervention was needed. The *Read Well* intervention was used when kindergarten students did not meet the expected fluency score at the end of a small group unit. The *Read Well* curriculum provided guidance for the author, along with different teaching strategies and techniques when the intervention process was required.

The author knew the grade level expectations (GLEs). The GLEs played an important and essential part in how the author taught the *Read Well* program. The GLEs were necessary when the author taught reading to students. The author knew the GLEs helped students achieve success in reading. The GLEs ensured the students met the goals for kindergarten. The GLEs were a significant part of how the author taught and educated the kindergarten students.

The author knew the 21 kindergarten students in the elementary school. The author knew the students' strengths and weaknesses in the area of reading. Struggling students received intervention along with additional small group reading instruction by the educator. Because the author knew the kindergarten students, the *Read Well* program was efficiently taught and met the students' reading needs.

#### Hypothesis or Research Question

Kindergarten students will show a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores using the Pearson's Product Moment Correlation.

#### Null Hypothesis

Kindergarten students will not show a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores using the Pearson's Product Moment Correlation.

### Significance of the Project

The author understood reading was significant for kindergarten students. The students needed to learn how to read in order to be successful in first grade. Basic reading skills were needed in kindergarten such as letter names and sounds. When the students understood how letters have sounds, then the skill of word recognition began to develop. These skills were significant for the students in order to have achieved success in the small group *Read Well* end of the unit assessments. The reading skills and strategies were necessary for the students to have acquired and ensured the students achieved the desired words correct per minute fluency goal at the end of a small group unit.

### Procedure

The author used assessments from the small group *Read Well* teacher guides to administer the end-of-unit assessments. The assessments were kept in organized binders for the educator's convenience. Every small reading group had a separate binder with individual student assessments included in the binder.

When the author conducted an end-of-unit assessment, the student was seated next to the educator. The student read letter sounds to begin the assessment. An end-of-unit assessment had about seven letters and the student had to say the sound each letter made. In units six, seven, and eight the student had to then do bumpy blending and smooth blending for a certain word. The bumpy and smooth blending stopped at unit eight. Next, the student had to sound



out certain words, while the student used the smooth blending method. Then the student had to read about two or three tricky words. Lastly, the student had to read two sentences. While the student read the sentences, the author used a timer and observed whether or not the desired fluency goal was reached.

The pretest the author used was the small group end-of-unit six assessment. The educator looked at the unit six assessments and determined how the students did on the words correct per minute fluency score. The author knew, by the fluency scores, whether or not the students required more instruction in the certain unit. Intervention was also an option if a student failed the end-of-unit assessment.

The posttest was the small group end-of-unit ten assessment. The educator compared the fluency scores on the unit six and unit ten assessments through a correlation graph. This process revealed if the students had shown a relationship between the unit six and unit ten assessments or if the students still struggled to meet the desired words correct per minute fluency goal. If the students continued to have difficulty with meeting the fluency goal for the end-of-unit ten assessment, the educator knew intervention and additional instruction were necessary for the students' reading proficiency. Intervention and supplementary instruction improved students' words correct per minute fluency scores.

## Definition of Terms

ability grouping. Ability grouping was a practice used to divide students for instruction based on the students' abilities for learning.

between-class grouping. Between-class grouping was a method used to separate students into different reading groups based on the students' reading levels.

bumpy blending. Bumpy blending was a blending method used to hear individual sounds in words.

end-of-unit assessments. End-of-unit assessments were a type of assessment used at the end of a small group *Read Well* unit to determine the words correct per minute fluency rate.

fluency goal. The fluency goal was the desired number of words correct per minute.

fluency score. The fluency score was a score of words correct per minute.

Harcourt Brace. *Harcourt Brace* was a basal reading program designed to be used after students graduated from the *Read Well* program.

jell-well reviews. Jell-Well reviews were a method used to reteach lessons within a small group *Read Well* unit.

mixed-ability groups. Mixed-ability groups were a method used to group students of varied academic levels for instruction.

Read Well. *Read Well* was a direct instruction program focused on basic reading skills and strategies in whole class activities and small group instruction.

small group Read Well. Small Group *Read Well* was a direct instruction program focused on basic reading skills and strategies in a small group setting.

smooth blending. Smooth blending was a blending method used to stretch words to hear sounds.

walk to read. Walk to Read was a method of grouping students by ability levels to teach reading.

#### Acronyms

GLEs. Grade Level Expectations

NCLB. No Child Left Behind

WASL. Washington Assessment of Student Learning

wcpm. words correct per minute

## CHAPTER 2

### Review of Selected Literature

#### Introduction

The author chose to talk about the definition of the No Child Left Behind Act and the components of reading instruction. Reading research focused on The National Reading Panel, a focus on fluency, and Put Reading First. The author explained small group *Read Well* and end-of-unit assessments. Intervention focused on double-dosing and jell-well reviews.

#### No Child Left Behind (NCLB)

The No Child Left Behind Act was defined as: “A United States federal law that reauthorizes a number of federal programs that aim to improve the performance of America’s schools by increasing the standards of accountability for states, school districts, and schools” (“No Child Left Behind Act,” 2006, p. 1).

Phonemic awareness, phonics, vocabulary, fluency, and comprehension were five components the No Child Left Behind Act focused on for reading instruction. Along with the five components, oral language and literacy experiences and connections between reading and writing were also essential parts of reading instruction and needed to be considered (Stewart, 2004). Snow, Dickinson, and Tabors (2002) believed more importance needed to be placed on vocabulary and rich language environments in the primary grades if reading

success was dependent on oral language skills (Snow, Dickinson, & Tabors, 2002).

### Reading Fluency

“Fluent readers are able to read orally with speed, accuracy, and proper expression” (National Institute of Child Health and Human Development, 2000, p. 11). “Fluency is one of several critical factors necessary for reading comprehension” (“Findings and Determinations of the National Reading Panel,” p. 1, 2006). If a child had a difficult time reading the text, comprehension decreased tremendously. Research on the importance of teaching fluency has led to increased changes in instructional practices. Fluency needs to be recognized as an essential and significant part of reading practices (“Findings and Determinations of the National Reading Panel,” 2006).

One instructional approach most frequently used to teach fluency was guided oral reading. Teacher feedback was a part of guided oral reading. The National Reading Panel review of guided oral reading concluded growth in word recognition, fluency, and comprehension. A variety of classrooms were involved with the study, including regular and special education classrooms. The results applied to proficient readers as well as unskilled readers (“National Institute of Child Health and Human Development,” 2000).

Repeated oral reading was a way to increase fluency. “The basic format for repeated reading was developed by Samuels (1979), based on what he

observed in classroom reading instruction” (“Pacific Resources for Education and Learning,” p. 5). Samuels observed students reading new words every day in the basal readers. Students were not able to read with fluency because the students did not get a chance to practice rereading the texts. Samuels concluded the instruction was at a too fast of a pace for the students (Samuels, 1979).

“Samuels developed reading-rate criteria as a means to measure fluency growth” (Samuels, 2002, ¶ 19). Students moved onto different passages in texts as soon as the desired reading rate was reached. Samuels decided students needed to have multiple opportunities to read the same text more than once in order to build fluency (Samuels, 2002).

“Fluency is the ability to read a text accurately and quickly” (Armbruster, Lehr, & Osborn, 2003, p. 22). Fluency provides a bridge between word recognition and comprehension. Fluent readers focused attention on the meaning of the text because little time was spent on decoding words. Fluent readers made connections between the text and background knowledge. Fluent readers were able to comprehend and recognize words at the same time, whereas less fluent readers spend most of the time figuring out the words and not comprehending the text (Armbruster et. al., 2003).

Students’ fluency rates were developed by opportunities to practice orally rereading text at the students’ individual reading level. The text contained words the student knew or words decoded easily. The text was at the students’

independent reading level. If the text was too difficult, the student would focus too much on word recognition. The student would then struggle to develop fluency (Armbruster et. al., 2003).

### Read Well

Small group *Read Well* was designed to meet individual student needs.

The research on small group *Read Well* stated,

“Small group instruction, which is based on individual student placement, helps students develop critical reading foundations to mastery by providing daily practice on letter-sound associations, blending, pattern word recognition, high-frequency irregular words, oral language, accuracy and fluency building, and story reading” (“Read Well is Designed for Success,” 2006, p. 1).

The research on small group *Read Well* confirmed the program was designed to teach students phonemic awareness skills, phonics, letter names and sounds, and other reading skills and strategies. The small group *Read Well* program was intended for students to master the skills and concepts within the unit before being moved on to the next unit.

In small group *Read Well*, solo stories were used to help students build on fluency. “Solo stories are read only by students and are fully decodable” (“Read Well is Designed for Success,” 2006, p. 2). Duet stories were also included within small group *Read Well* where the teacher and students read together. In

the duet stories, the decodable words were read by the students and the other words were read by the teacher. Adjustments were made frequently to small groups based on student performance (“Florida Center for Reading Research,” 2002).

The end-of-unit assessments in small group *Read Well* ensured students were placed at the appropriate reading level. At the end of each small group unit, students needed to master the skills taught in order to move onto the next small group unit. End-of-unit assessments helped the educator to understand whether or not an individual student could move onto the next small group unit or needed additional remediation (“Read Well is Designed for Success,” 2006).

### Intervention

Double-dosing was an intervention used for students. Double-dosing involved teaching the same lesson two times to students. Educators needed to monitor the assessments very carefully. The assessments let the educator know whether or not the students needed to be double-dosed. If students had difficulty passing the end-of-unit assessments, double-dosing would be an essential intervention piece.

Students with high needs usually fell into the category of double-dosing. Students with language, behavioral, and/or processing concerns usually needed to be double-dosed. “For these students, early and intensive intervention is critical” (Dunn, Gunn, Jones, & Sprick, 2004, p. 171). Suggestions for double-dosing



included having the students repeat a second dose of *Read Well* instruction, one-to-one, or with a small group of other students. Students could also meet with a parent volunteer to reread the solo stories or play a quick *Read Well* game with the Sound and Word Cards (Dunn, Gunn, Jones, & Sprick, 2004).

Jell-Well reviews were a method used to reteach lessons within a small group *Read Well* unit. Jell-Well reviews were used when students received a “weak pass” on two consecutive units. Previous lessons were repeated for students to build on the skills and knowledge. Students repeated certain activities and skills within the unit to become more proficient readers.

### Summary

The author reviewed great literature. The author discussed the No Child Left Behind Act and the components included in the act. The NCLB Act focused on phonemic awareness, phonics, vocabulary, fluency, and comprehension.

Reading research focused on the National Reading Panel, a focus on fluency, and Put Reading First. The author discussed the meaning of fluency and how important fluency should be to early readers. The author focused on explaining how fluency will lead to students’ understanding of the text. The author talked about how Samuels did observations on students. The students were not able to read fluently because there were no opportunities to practice rereading the texts. The author discussed how fluent readers made connections between the text and background knowledge.

*Read Well* included a small group component and end-of-unit assessments. In the small groups, students were able to read solo and duet stories to increase fluency rates. End-of-unit assessments ensured students were placed at the appropriate reading level. When end-of-unit assessments were conducted, the educator knew whether or not an individual student was ready to move onto the next small group unit or needed additional intervention.

Intervention focused on double-dosing and jell-well reviews. Double-dosing was an intervention method used for high needs students. Double-dosing was teaching the same lesson two times. Jell-well reviews were appropriate when students received a “weak pass” on two or more consecutive units. Jell-well reviews continued to build the necessary knowledge and skills the students needed in order to move on to the next small group unit.

## CHAPTER 3

### Methodology and Treatment of Data

#### Introduction

The author conducted a correlation study. The correlation study involved the author using the Pearson's Product Moment Correlation to see if there was a relationship between the fluency scores for the end-of-unit six and end-of-unit ten assessments. The author performed the study on kindergarten students.

#### Methodology

The author used a correlation study for the research method. "Correlation research involves collecting data to determine whether, and to what degree, a relationship exists between two or more quantifiable variables" (Airasian, Gay, & Mills, 2006, p. 191).

#### Participants

The project involved 21 kindergarten students from the elementary school. The project was conducted between the time period of December 2005 and June 2006.

#### Instruments

The author used the end-of-unit six and ten assessments, a timer, and a pen for the data gathering devices. The student looked at the end-of-unit assessment while the educator used a pen to record the student's responses. When the student

read the sentences, a timer was used to measure the words correct per minute fluency score.

The author discussed the validity and reliability issues. 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” (Airasian, Gay, & Mills, 2006, p. 134). Also, valid measuring instruments should be used to symbolize the variables (Airasian, Gay, & Mills, 2006).

According to Airasian, Gay, and Mills (2006), “reliability is the degree to which a test consistently measures whatever it is measuring” (Airasian, Gay, & Mills, 2006, p. 139). If the students were to take the test again, the scores should be about the same scores the students received the first time. If the scores were very different every time a student took the test, the test would be unreliable (Airasian, Gay, & Mills, 2006).

### Design

The author used a correlation study for the design method. The author used the fluency scores from the end-of-unit six assessment and the end-of-unit ten assessment to conduct the correlation. The author wanted to find out if there was a relationship between the fluency scores from the end-of-unit six and ten assessments.

## Procedure

The author used assessments from the small group *Read Well* teacher guides to administer the end-of-unit assessments. The assessments were kept in organized binders for the educator's convenience. Every small reading group had a separate binder with individual student assessments included in the binder.

When the author conducted an end-of-unit assessment, the student was seated next to the educator. The student read letter sounds to begin the assessment. An end-of-unit assessment had about seven letters and the student had to say the sound each letter made. In units six, seven, and eight the student had to then do bumpy blending and smooth blending for a certain word. The bumpy and smooth blending stopped at unit eight. Next, the student had to sound out certain words, while the student used the smooth blending method. Then the student had to read about two or three tricky words. Lastly, the student had to read two sentences. While the student read the sentences, the author used a timer and observed whether or not the desired fluency goal was reached.

The pretest the author used was the small group end-of-unit six assessment. The educator looked at the unit six assessments and determined how the students did on the words correct per minute fluency score. The author knew, by the fluency scores, whether or not the students required more instruction in the certain unit. Intervention was also an option if a student failed the end-of-unit assessment.

The posttest was the small group end-of-unit ten assessment. The educator compared the fluency scores on the unit six and unit ten assessments through a correlation table. This process revealed if the students had shown a relationship between the unit six and unit ten assessments or if the students still struggled to meet the desired words correct per minute fluency goal. If the students continued to have difficulty with meeting the fluency goal for the end-of-unit ten assessment, the educator knew intervention and additional instruction were necessary for the students' reading proficiency. Intervention and supplementary instruction improved students' words correct per minute fluency scores.

#### Treatment of the Data

The author used the Pearson's Product Moment Correlation to statistically calculate the data. The author used the fluency scores from the end-of-unit six and ten assessments to see if there was a relationship between the two. The author used the Stat Pak to conduct the Pearson's Product Moment Correlation.

#### Summary

The author used the words correct per minute fluency scores to determine if there was a relationship between the end-of-unit six and end-of-unit ten assessments. The data was gathered by using the Pearson's Product Moment Correlation statistical device.

## CHAPTER 4

### Analysis of the Data

#### Introduction

Kindergarten students were involved with the project. The parameters discussed were materials, maturation issues, and number of students. The hypothesis and null hypothesis were restated. The data was represented on a scatterplot graph. The author talked about the results of the study and the findings of the study. The author analyzed the data from the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency goals. The author entered the scores into the Pearson's Product Moment Correlation.

#### Description of the Environment

The project involved 21 kindergarten students from the elementary school. The project was conducted between the time period of December 2005 and June 2006.

One of the parameters for the project included materials provided from the district. The materials the district supplied were the *Read Well* curriculum, such as teacher guides, storybooks, magazines, blending cards, and word and picture cards. Additional materials included were black line masters for small group activities and multiple intervention ideas for reteaching students.

Another parameter was maturation issues. The time period when the kindergarten students were assessed was from December 2005 to June 2006. The students were more successful at passing the end of the unit assessments toward spring because the students were farther along with reading progress. In contrast, if students were to demonstrate regression toward spring because of maturation issues, then the students were still not maturely developed enough to be readers.

An additional parameter was the number of students. The author conducted the project on 21 kindergarten students. The author had to be very organized in the way the data was collected. At the end of a unit, the educator assessed the students in the classroom.

#### Hypothesis/Research Question

Kindergarten students will show a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores using the Pearson's Product Moment Correlation.

The scatterplot graph showed data on unit six words correct per minute fluency scores and unit ten words correct per minute fluency scores. The graph supported the hypothesis. The scatterplot graph displayed a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the wcpm fluency scores.

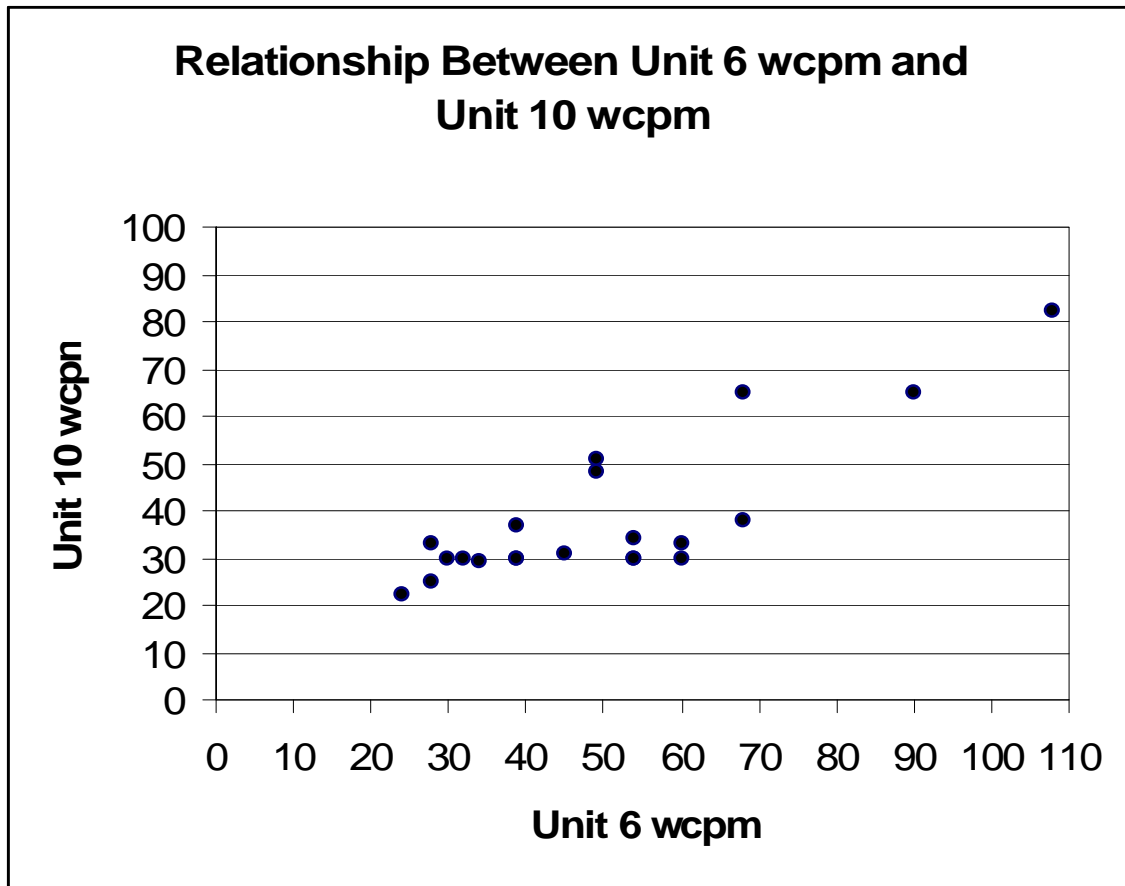


### Null Hypothesis

Kindergarten students will not show a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores using the Pearson's Product Moment Correlation.

The author analyzed the data and used The Pearson's Product Moment Correlation. The data showed there was a relationship between the small group *Read Well* end-of-unit six and ten assessments. The author concluded the null hypothesis was accepted.

Results of the Study



When the author entered the unit six and unit ten wcpm fluency scores into the Pearson's Product Moment Correlation, the author found the Pearson's  $r$  value was .83. The number of items was twenty-one. The degrees of freedom were nineteen. The author used Table A.2: Values of the correlation coefficient for different levels of significance and concluded  $.83 > .4329$  at the .5 level (Airasian, Gay, & Mills, 2006). The scatterplot graph showed there was a high

positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the wcpm fluency scores.

### Findings

After the data was analyzed, the author found a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The data on the scatterplot graph showed a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the wcpm fluency scores. The kindergarten students involved with the project showed there was a relationship between the fluency scores from the unit six and unit ten assessments as measured by the words correct per minute fluency scores. The null hypothesis was rejected.

### Discussion

The author knew there was a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores when the scores were calculated into the Pearson's Product Moment Correlation. The author analyzed the data and recorded the data into the scatterplot graph. The data on the scatterplot graph showed a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores.

## Summary

The author discussed how materials, maturation issues, and number of students were parameters for the project. The author concluded the outcome of the hypothesis was true. After the data was entered into the Pearson's Product Moment Correlation, the author then took the scores and inserted them onto the scatterplot graph. The scatterplot graph showed a high positive correlation between the unit six and unit ten assessments as measured by the words correct per minute fluency scores. The hypothesis was supported. The kindergarten students showed a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores.

## CHAPTER 5

### Summary, Conclusions and Recommendations

#### Introduction

The author made conclusions and recommendations based on the data of the project. The author discussed the findings of the data. The scatterplot graph showed a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The author discussed a few recommendations based on the conclusions of the findings.

#### Summary

The purpose of the project was to examine if kindergarten students had shown a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The study was performed on 21 kindergarten students. The author predicted kindergarten students had shown a relationship between the small group *Read Well* fluency scores in units six and ten. The importance of the relationship between the small group *Read Well* fluency scores in units six and ten demonstrated how the kindergarten students maintained similar fluency scores.

According to “Read Well is Designed for Success” (2006):

“Small group instruction, which is based on individual student placement, helps students develop critical reading foundations to mastery by

providing daily practice on letter-sound associations, blending, pattern word recognition, high-frequency irregular words, oral language, accuracy and fluency building, and story reading” (“Read Well is Designed for Success,” 2006, p. 1).

In small group *Read Well*, solo stories were used to help students build on fluency. “Solo stories are read only by students and are fully decodable” (“Read Well is Designed for Success,” 2006, p. 2). Duet stories were also included within small group *Read Well* where the teacher and students read together. In the duet stories, the decodable words were read by the students and the other words were read by the teacher. Adjustments were made frequently to small groups based on student performance (“Florida Center for Reading Research,” 2002).

The author used a correlation study for the design method. The author used the fluency scores from the small group *Read Well* end-of-unit six assessment and the end-of-unit ten assessment to conduct the correlation. The author wanted to find out if there was a relationship between the fluency scores from the end-of-unit six and ten assessments.

The author knew there was a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores when the scores were calculated into the Pearson’s Product Moment Correlation. The author analyzed the data and recorded the data into the

scatterplot graph. The data on the scatterplot graph showed a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores.

### Conclusions

After the data was analyzed, the author found a high positive correlation between the small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The data on the scatterplot graph showed a relationship between the small group *Read Well* end-of-unit six and ten assessments as measured by the wcpm fluency scores. The kindergarten students involved with the project showed how there was a relationship between the fluency scores from the unit six and unit ten assessments as measured by the words correct per minute fluency scores.

### Recommendations

Based on the conclusions, the author understands how there is a relationship between the end-of-unit six and ten assessments as measured by the words correct per minute fluency scores. The scatterplot graph shows a high positive correlation between unit six and unit ten wcpm fluency scores. The kindergarten students maintained similar fluency goals in unit six and unit ten. The author realizes the small group *Read Well* program is a reading program designed to help students become fluent readers.

The author believes the study done on the kindergarten students could generalize for all schools. The small group *Read Well* program has shown to be a well-rounded reading program for kindergarten students. The author believes if a random sample was done on one hundred kindergarten students, the results would still show how there was a relationship between small group *Read Well* end-of-unit six and ten assessments as measured by the words correct per minute fluency scores.

The author does not believe there would be a drastic change in fluency scores if the environment were different when students were being assessed. The author believes the fluency scores would have been quite similar. If the environment was quiet when the students were being assessed compared to the environment being a little noisy, the author thinks the fluency scores would not have shown to be very different.

To replicate the study, there would need to be some similarities including ethnicity, environment, age of students, number of students, ELL students, special education students, etc. People wanting to replicate the study would have to follow the procedure the author used in order for the study to be duplicated.



## References

- Armbruster, B.B., Lehr, F., & Osborn, J. (2003). *Put Reading First: The research building blocks for teaching children to read*. (2<sup>nd</sup> ed.). Jessup, MD: National Institute for Literacy.
- Dunn R., Gunn B., Jones S., & Sprick, M. (2004). *Getting started: A guide to implementation*. Longmont, CA: Sopris West Educational Services.
- Findings and determinations of the National Reading Panel by topic areas*. Retrieved July 19, 2006 from <http://www.nichd.nih.gov/publications/nrp/findings.htm>
- Florida Center for Reading Research. *Read Well*. Retrieved February 12, 2007 from <http://www.readwell.net/results.htm>
- Gay, L.R., Mills, G.E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications*. (8<sup>th</sup> ed.). Upper Saddle River, New Jersey: Pearson Education, Inc.
- Harcourt trophies*. Retrieved July 25, 2006 from <http://jstore.harcourtschool.com/marketplace/index.html>
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington D.C.: U.S. Government Printing Office.
- No child left behind act*. Retrieved July 20, 2006 from [http://en.wikipedia.org/wiki/No\\_Child\\_Left\\_Behind\\_Act](http://en.wikipedia.org/wiki/No_Child_Left_Behind_Act)
- Office of superintendent of public instruction: Education awards*. Retrieved February 18, 2007 from <http://www.k12.wa.us/EducationAwards/blueribbon/2003Recipients.aspx>
- Office of superintendent of public instruction: Washington state report card*. Retrieved July 11, 2006 from <http://reportcard.ospi.k12.wa.us/?schoolId=808&reportLevel=School&orgLinkId=808&yrs=>

*Read well is designed for success.* Retrieved July 24, 2006 from [http://store.Cambiumlearning.com/Resources/Research/pdf/sw\\_Research\\_ReadWell\\_RB01.pdf](http://store.Cambiumlearning.com/Resources/Research/pdf/sw_Research_ReadWell_RB01.pdf)

*Research.* Retrieved July 24, 2006 from <http://store.cambiumlearning.com/Resource.aspx?page=Research&site=sw&parented=0190>

Samuels, S. J. (1979). The method of repeated readings. *The Reading Teacher*, 32, 403-408.

Samuels, S. J. (2002). Reading fluency: Its development and assessment. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 166-183). Newark, DE: International Reading Association.

Stewart, M. T. (2004). *Early literacy instruction in the climate of no child left behind.* Retrieved July 20, 2006 from ProQuest database.

Westchester Institute for Human Services Research. (2002). *The balanced view: Research-based information on timely topics* (Vol. 6). New York: Author. Retrieved July 25, 2006 from <http://www.sharingsuccess.org/code/bv/ability2.pdf#search>

APPENDIX

<b>Students</b>	<b>Read Well Unit (wcpm)</b>	
	<b>Unit 6 wcpm fluency score</b>	<b>Unit 10 wcpm fluency score</b>
1	108	82
2	90	65
3	68	65
4	49	48
5	68	38
6	49	51
7	54	30
8	39	30
9	45	31
10	32	30
11	60	33
12	54	30
13	54	34
14	24	22
15	60	30
16	28	33
17	34	29
18	39	30
19	28	25
20	39	37
21	30	30