

DOES BUDDY READING IMPROVE STUDENTS' ORAL READING FLUENCY?

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ABSTRACT

This study has been conducted to find if there is a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program. The study also analyzed if there is a relationship between students' ability level and oral reading fluency. This study was based on the theory of Social Development presented by Dr. Lev Vygotsky. The study was conducted with twenty third-grade students who are part of a Midwest school. The assessment used to collect the raw data was a 3-Minute Reading Assessments from Scholastic Teaching Resources. Students were asked to read as many words as possible, from a passage at their grade level, within a one-minute time frame to calculate their reading fluency rate, words per minute. The findings supported both research questions and rejected the null hypotheses. The study found that there is a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to those who did not participate and that there is a relationship between students' ability level and oral reading fluency.

Keywords: buddy reading, English Language Learners (ELL), fluency, reading program, and *Zone of Proximal Development (ZPD)*

INTRODUCTION

Background, Issues, and Concerns

During daily interactions with her reading group, Amanda would ask herself, “What best practice can she implement to help her students become more fluent readers?” As she works with the lowest readers in third grade, she notices that their fluency often negatively affects other aspects of their reading such as self-confidence, expression, and comprehension. In some cases, these students read so slowly that they are unable to comprehend the text, making reading a frustrating task. Slow fluency rates can also cause students to become frustrated and lose interest in their reading. Some lose the motivation to become better readers.

Many instructional strategies have been introduced throughout the years to help improve students’ oral reading fluency including: Reader’s Theater, Poetry Stations, Recording Oral Readings of a Passage, and Buddy Reading Programs. Amanda’s concern is identifying a best practice in reading instruction that can be implemented within reading groups to help struggling readers develop better oral reading fluency. Specifically, the investigation will look at a buddy reading program and its potential to significantly increase students’ oral reading fluency. While this topic has been researched in the past the results vary depending on the study group and research design. She hopes to gain a more concrete idea of the significance a buddy reading program has on students’ oral reading fluency. One factor that may influence the study is the small population size of the study.

Practice under Investigation

The practice under investigation is the effect of a buddy reading program on students' oral reading fluency, including students on different levels of reading achievement and English Language Learners (ELLs).

School Policy to Be Informed by this Study

School districts in the state of Missouri are currently responsible for teaching and showing mastery of the Missouri Grade Level Expectations (GLEs). At the third-grade level students currently address the following reading fluency standard: "The student will read a grade-level instructional text with fluency, accuracy, and expression adjusting reading rate to difficulty and type of text" (DESE, 2008, p. 3). As of the 2014-2015 academic year, students will be expected to meet the new Common Core State Standards, which state: The student will "Read with sufficient accuracy and fluency to support comprehension; Read grade-level text with purpose and understanding; Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings"; and "Use context to confirm or self-correct word recognition and understanding, rereading as necessary" (Common Core State Standards Initiative, 2014, p. 17). If buddy reading is found to be effective, teachers should implement this instructional method to improve students' oral reading fluency, leading to improvement in reading comprehension and expression in oral reading.

Conceptual Underpinning

Great teachers understand that most students learn best when they work with their peers. As students work together, they can learn from one another. When they are stretched to explain their own thinking, they become more of an expert on the topic being discussed. Dr. Lev

Vygotsky presents this same idea in his theory of Social Development. This theory states that when children work with others in a social setting, they are able to fully develop the Zone of Proximal Development (ZPD). When students work with others, the range of skills that can be developed with adult guidance or peer collaboration exceeds what can be attained alone (Culatta, 2013). This theory suggests that when students read together, they would be able to achieve a higher reading achievement level than if they read independently. Therefore, buddy reading may prove to be a successful way to improve students' oral reading fluency. Two heads may be better than one!

Statement of the Problem

Struggling readers often demonstrate shortfalls in oral reading fluency. These insufficiencies lead to struggles with reading comprehension, self- confidence, and expression during reading. Educators need to implement reading instructional practices to significantly increase students' oral reading fluency rates.

Purpose of the Study

The purpose of this action research study is to examine the effects of buddy reading on oral reading fluency of a variety of third-grade students (above average, average, below average, or ELL).

Research Questions

Research Question 1: Is there a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program?

Research Question 2: Is there a relationship between students' ability level and oral reading fluency?

Null Hypotheses

Null Hypothesis 1: There is no significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program.

Null Hypothesis 2: There is no relationship between students' ability level and oral reading fluency.

Anticipated Benefits of the Study

The results of this study will allow teachers to reevaluate the reading strategies that should be used during the reading portion of the day and whether or not buddy reading is a strategy that should be included. This will give teachers the data to evaluate the benefits or insufficiencies of a buddy reading program. Results from this study will give teachers a better understanding of how to plan their reading instruction.

Definition of Terms

Buddy reading: A literacy program designed for students to work in pairs to improve their literacy development.

English Language Learners (ELL): Someone who is learning to read, write, and speak English as a second language.

Fluency: How quickly and accurately one reads.

Reading program: A series of planned events used to develop literacy.

Zone of Proximal Development (ZPD): the difference between what a learner can do without help and what he or she can do with help.

Summary

A study was conducted to see if there was a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program. If the statistical analysis demonstrates a significant difference, teachers should implement a buddy reading program within their reading instruction. This would allow growth in the area of students' oral reading fluency, which may also contribute to better comprehension and expression. Once the study is completed, school districts and individual teachers can benefit by examining the results of a buddy reading program on students' oral reading fluency.

REVIEW OF LITERATURE

When looking for a way to improve students' oral reading fluency, self-confidence, social skills, and enjoyment of reading, teachers turn to buddy reading programs. Buddy reading programs have been also been termed: paired reading, book buddies, big sisters, and cross-age reading buddies but these programs all focus on the same goals. Buddy reading programs focus on increasing students' fluency, comprehension, and self-esteem in their reading. According to Lowery, Sabis-Burns, and Anderson-Brown (2008 as cited by Block & Dellamura, 2000/2001), "Buddy reading is a literacy activity that enhances children's literacy development" (p. 31). Lowery, Sabis-Burns, and Anderson-Brown (2008 as cited by Block & Dellamura, 2000/2001) then go on to state, "It is especially designed to increase emergent or less-able readers' literacy" (p.31). Li and Nes (2001) restated the definition of paired reading as the pairing of skilled and less-skilled readers as a reading instructional method where the skilled reader demonstrates appropriate reading.

Vygotsky believed that learning is directly influenced by social interactions that are carried out during buddy reading. Nes Ferrara (2005) and Flint (2010) also looked to Vygotsky as a theorist whose ideas and theories support buddy reading. Nes Ferrara (2005) stated, "This approach is based on the assumption that children's cognitive development is promoted and enhanced through their interactions with more advanced and capable individuals" (p. 216). The research conducted for this study examines the effects of buddy reading on oral reading fluency of a variety of third-grade students (above average, average, below average, and ELL).

The literature supports buddy reading or paired reading as an acceptable and valuable part of reading instruction. Articles reviewed for this report stated that buddy reading programs

help to motivate struggling readers and improved students' self-esteem, social relationships with peers, comprehension, and fluency. According to Friedland and Truesdell (2004), "An additional bonus of such a program is having students surrounded by quality literature that can be used throughout the day" (p. 78). However, while in many articles the research strongly support the growth in the students' self-esteem and social relationships, the research did not elaborate on the students' fluency improvements or the length of time the growth was retained.

MacDonald (2010) stated, "for pupils who have gaps in their phonological knowledge this approach has limited success as it relies almost exclusively on visual or auditory memory" (p. 15). The problem is the minimal amount of research that is accessible on the topic of buddy reading in regards to its affects on students' oral reading fluency. The purpose of this review of the current literature is to assess previously implemented buddy reading programs, the groups of students observed to generate the current literature, and to analyze the data derived from theses studies.

Previously implemented buddy reading programs have focused a great deal on the type of readers that are paired together. Lowery et al. (2008) stated:

The book buddy reading strategy may be implemented in several ways to help children at different ability levels. Students can form buddy reading groups in the same classroom with their peers, younger children can be paired with advanced reading-level students in higher grade levels, or younger children can be paired with older students who are reading at a lower grade level (p. 31).

Many of the articles reviewed discuss higher grade level readers buddying with younger children. The articles that support this arrangement for a buddy reading program are created by a range of teachers with students in kindergarten through ninth grade. These articles originate from

multiple countries around the world. Data from these reports also include the effects of buddy reading in groups where older English Language Learners (ELL) teach younger ELL students how to read texts written in English. Rubinstein-A´vila (2003) described students using a buddy reading program while working in a dyad in a two-way bilingual program. Other articles discussed the benefits to younger children when they are paired with older students who read at a lower grade level. Cianca (2012) stated, “Substantial evidence shows that cross-age pairing leads to gains in literacy, accuracy, and comprehension for both the older and younger students” (as cited in Topping, 1989, p. 488-494). Teachers who reported on this form of implementation found the program to benefit both buddies (younger and older students).

These reports indicated that while older students build on self-confidence and comprehension skills, the younger students developed social relationships while gaining a model of fluent reading. The least amount of research was reported on the implementation of students from the same classroom forming buddy reading groups with their peers. In the research conducted by Miller, Topping, and Thurston (2010), the authors suggest arranging students by ability (low-high) and then placing the highest achieving tutor with the highest achieving tutee. Although this implementation was validated for its accessibility, flexibility, and ability to allow students to reread a familiar text, there is minimal amount of research conducted where this form of the program is implemented.

Also significant in nearly every piece of literature was the discussion of coaching the reading buddies. For example, Theurer and Schmidt (2008, as cited by Block & Dellamura, 2000/2001) stated:

Kathy realized that the fifth graders would also benefit from some coaching on reading to and with their buddy. When she met with the fifth-grade buddies, she talked about the

strategies she uses as she prepares for read-alouds with her class. She advised them to preview the book they planned to read to their buddy by reading it aloud prior to the meeting with their buddy. Additionally, she encouraged them to be ready to model fluency and read with expression, using different pitches and even creating distinct voices for different characters (p. 364-370).

Another strategy suggested was to read the title of the book and ask the first-grade buddy to make a prediction about the text. Theurer and Schmidt (2008, as cited by Block & Dellamura, 2000/2001) noted that Kathy recommended that the buddies choose some predetermined places in the text to stop reading and talk with their buddy about the book. These coaching tools proved to be beneficial especially to those older students who were still struggling readers or who struggled with social situations. This also gave the teacher the ability to regulate the teaching/discussion methods that would be used during the buddy reading program.

Another article stated that this program gave the older students a sense of responsibility to their job as they instructional leader. Alfalasi (2008) was told by Moza, her grade nine teaching partner, “They take the stories home with them on the weekends and read them several times, looking up difficult vocabulary and asking her about things they didn’t understand. They were very serious about understanding everything about the story before they began to read it to their reading buddies” (p. 3).

Both buddies from this form of implementation of buddy reading reported they found it beneficially to have a reading buddy. Older students reported feeling more confident in their own reading abilities as well as learning and using new comprehension strategies during their own personal reading. Younger students stated they felt comfortable reading and asking questions about the text when they were with their reading buddy. These students also felt they had made

lasting relationships with the older students and thus this fostered their positive attitudes toward reading.

Portions of each article supported the value of a buddy reading program. A majority of the articles discussed the students' growth after implementing a buddy reading program and discussed how this program is strongly research based. Several articles placed a strong emphasis on the follow-up activities used to structure the buddies reading programs. These articles stressed the importance of the follow-up activities and the difference these activities made in the students improvements. More research would need to be conducted to validate whether or not buddies who have the same aged peers as buddies could make the same amount of gains when a buddy reading program is implemented. The purpose of the research conducted for my study would be to determine if same aged peers (as buddies) can make sufficient gains in the area of oral reading fluency when a buddy reading program is implemented.

RESEARCH METHODS

Research Design

A quantitative study was conducted to see if buddy reading improves students' oral reading fluency. The independent variables in the study were student age and gender. The dependent variables were the participation in a buddy reading program and changes in oral reading fluency rate. Students were divided into two groups; a controlled group of students who independently read during the allotted time while the experimental group of students participate in a buddy reading program during the allotted time. If the difference in students' oral reading fluency rate is found significant, then teachers should implement this program as a part of their reading instruction.

Study Group Description

A group of twenty third-grade students have been selected to complete the study. Students range in age from eight to ten. Eleven students are male and nine students are female. The reading ability of these students ranges between a Lexile level of BR0 to 986. The students are part of the third grade class at an elementary school in the Midwest. According to the DESE website, this elementary school had a Free or Reduced lunch percentage of 61.2 percent in 2013 (DESE, 2013). The population of the school in 2013 was a total of 371 students and the school had a population of students in the following ethnic groups: Black, Hispanic, and White (DESE, 2013).

Data Collection and Instrumentation

Data for this study was collected by the administration of a 3-Minute Reading Assessments from Scholastic Teaching Resources. Students were asked to read as many words as possible, from a passage at their grade level, within a one-minute time frame to calculate their reading fluency rate, words per minute. The test was administered to students in both subgroups at the beginning and end of the study period

Statistical Analysis Methods

A t-test was conducted to find if there is a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program. The source was broken into two categories: students who participate and students who did not participate. The mean, mean difference (Mean D), t-test, Degrees of Freedom (df), and p-value were concluded from this test. The Alpha level was set at 0.25 to test the null hypothesis: There is no significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program.

A Correlation Analysis was conducted to find if there is a relationship between students' ability level and oral reading fluency. The ability group was broken into three categories: below grade level (1.0), on grade level (2.0), or above grade level (3.0). The Number of subjects (N), mean, correlation coefficient (r), practicality (R^2), and p-value were concluded from this test. The Alpha level was set at 0.25 to test the null hypothesis: There is no relationship between students' ability level and oral reading fluency.

FINDINGS

A t-test was conducted to determine if there was a significant difference in third-grade students' oral reading fluency rates based on participation in a buddy reading program. The following tables, graphs, and charts will illustrate and organize the findings based on the statistical raw data found by the data collection instrument, 3-Minute Reading Assessments, completed in 2015.

A Correlation Analysis was conducted to determine if there was a relationship between students' ability level and oral reading fluency. The following tables, graphs, and charts will illustrate and organize the findings based on the statistical raw data found by the data collection instrument, 3-Minute Reading Assessments, completed in 2015.

Figure 1

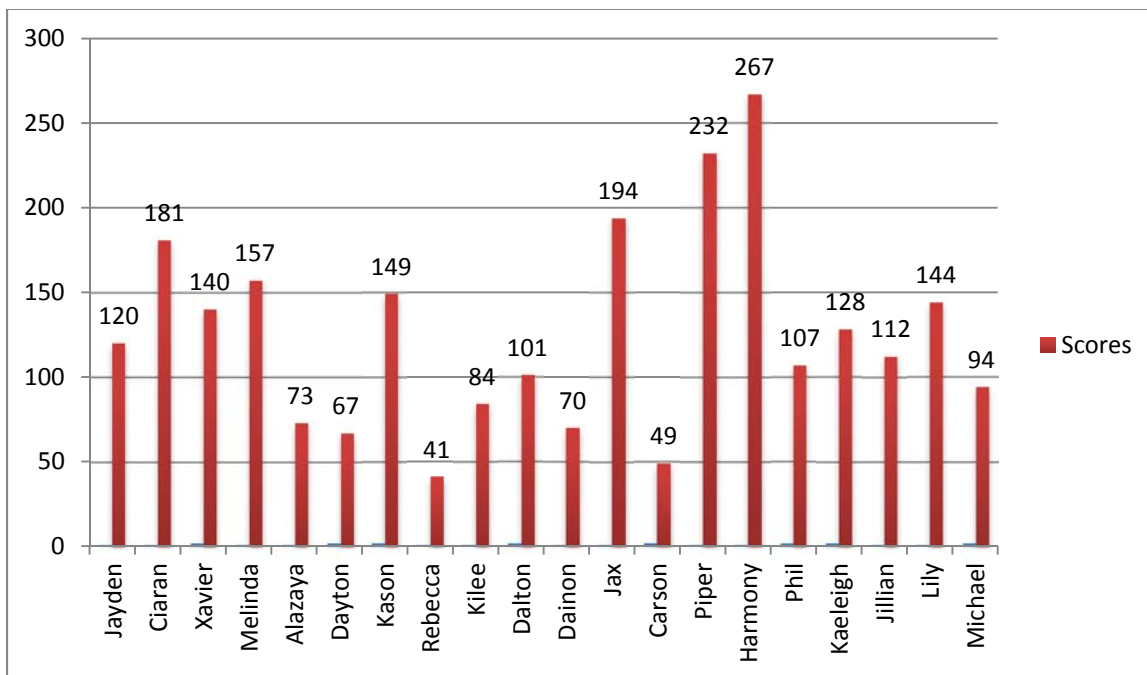
Student Participation in a Buddy Reading Program and Words Per Minute Fluency Scores

Student	Status	Score
Student A	1	120
Student B	1	181
Student C	2	140
Student D	1	157
Student E	1	73
Student F	2	67
Student G	2	149
Student H	1	41
Student I	1	84
Student J	2	101
Student K	1	70
Student L	1	194
Student M	2	49
Student N	1	232
Student O	1	267
Student P	2	107
Student Q	2	128

Student R	1	112
Student S	1	144
Student T	2	94
Mean		125.5
Median		116
Maximum		267
Minimum		41
Standard Deviation		59.54

After collecting the information from twenty third-grade students the mean, or average, words per minute (wpm) fluency score was 125.5 wpm. The median score was 116 wpm. The maximum score from the twenty students was 267 wpm and the minimum score was 41wpm. The standard deviation was 59.54.

Figure 2



The chart above shows students words per minute fluency test score. These scores are the raw statistical data from the administration of a 3-Minute Reading Assessments from Scholastic Teaching Resources. This data was used to conduct both the *t*-test and Correlation Analysis, which are shown below.

Figure 3

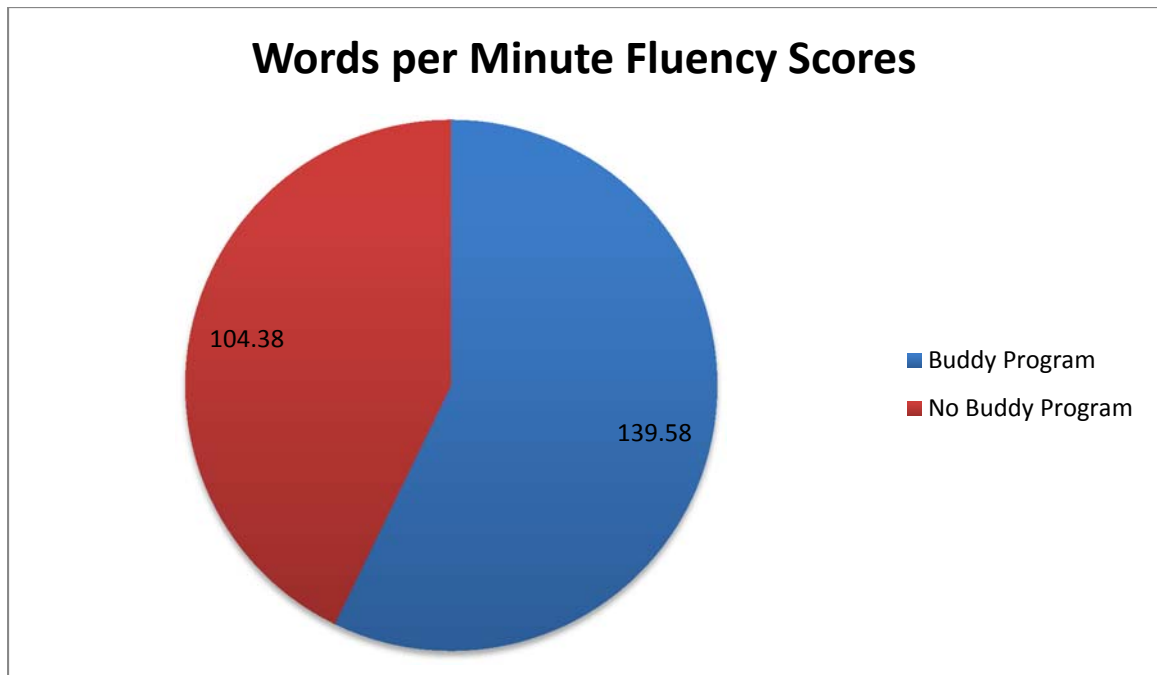
t-Test Analysis Results for Student Participation in a Buddy Reading Program and Words Per Minute Fluency Scores

Source	Mean	Mean D	<i>t</i> -test	df	<i>p</i> -value
Buddy Program (n=12)	139.58				
No Buddy Program (n=8)	104.38	35.21	1.32	18	0.20

Note: Significant when $p \leq 0.25$

The independent variable was student participation in a buddy reading program and the dependent variable was words per minute fluency scores. Twenty third-grade students were divided into two groups. Twelve students made up the experimental group with the buddy program and eight students made up the controlled group without the buddy program. The mean score for the group with a buddy program was 139.58 while the mean score for the group without a buddy program was 104.38. The difference of the mean score (Mean D) was 35.21. The *t*-test was 1.32. The degrees of freedom (df) was 18. The null hypothesis was: There is no significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program. The null is rejected because the *p*-value of 0.20 is less than the alpha level of .25. This means that there is a significant difference in word per minute fluency scores of students who participated in a buddy reading program and the students who did not participate in a buddy reading program.

Figure 4



The mean words per minute fluency score of the students' who participated in a buddy reading program was 139.58. Students who did not participate in a buddy reading program had a mean score of 104.38. This pie chart shows that the students who participated in a buddy reading program had higher words per minute fluency scores on average than students who did not participate.

Figure 5

Correlation Study Ability Level and Words Per Minute Fluency Scores

	N	Mean	r	R ²	p-value
Ability Level	20	1.95			
Scores	20	125.5	0.89	0.79	2.06E-7

Note significance = or < .25

After collecting the information from twenty third-grade students, a correlation matrix was completed to test the null hypothesis to find if there is a relationship between students'

ability level and oral reading fluency. The null hypothesis was: There is no relationship between students' ability level and oral reading fluency. The data collected for ability level reveals the mean, or average, was 1.95. The data collected for words per minute fluency scores displays the mean, or average, was 125.5; the r , or correlation coefficient, was 0.89; the R^2 , or practicality, was 0.79; and the p -value was $2.06E-7$. The correlation coefficient, 0.89, shows that the relative strength of the relationship was strong. Since the number is positive it shows that there is a direct, or positive, relationship, meaning that both variables parallel each other in the same direction. Therefore, when ability level increase, the words per minute fluency score increases. For a relationship to be considered practical the practicality level must be higher than 10%; the practicality reported in this finding is 0.79% indicating that this relationship is not practical. The p -value, calculated at $2.06E-7$, is lower than the Alpha level set at 0.25; consequently, there is a significant relationship between students' ability level and words per minute fluency scores. After compiling these relationship indicators, the null hypothesis would be rejected. There is a significant relationship between students' ability level and oral reading fluency.

CONCLUSIONS AND RECOMMENDATIONS

The results from this study show that students who participated in a buddy reading program currently perform better on oral reading fluency tests than students who do not participate in a buddy reading program. The t-test results indicated that the p -value was 0.20, which is lower than the alpha level set at 0.25; therefore, the null hypothesis tested is rejected. There is a significant difference in oral reading fluency rates of third-grade students who participated in a buddy reading program compared to third-grade students who did not participate in a buddy reading program. In addition, the results from the study show that there is a relationship between students' ability level and oral reading fluency. The Correlation Analysis results indicated that the p -value was 2.06E-7, which is much lower than the alpha level set at 0.25; therefore, the null hypothesis tested is indefinitely rejected with confidence. There is a relationship between students' ability level and oral reading fluency.

The conceptual underpinning of theorist Dr. Lev Vygotsky is strongly supported by these research findings. The Social Development theory explains how students are able to fully develop the Zone of Proximal Development (ZPD) when they work with others in a social setting. When students work with others, the range of skills that can be developed with adult guidance or peer collaboration exceeds what can be attained alone (Culatta, 2013). There are significant differences in the words per minute fluency scores of students who worked with a buddy and those who worked independently. Since students are able to achieve higher reading fluency with a partner, buddy reading programs should be considered and implemented to achieve maximum success. Teachers should implement buddy reading programs into their daily routines to ensure the success of all students.

After concluding this study there are some further studies that could be conducted. A new buddy reading program with different aged peers could be implemented to see the effects of buddy reading with an older buddy. Further studies could be conducted to see if ability level also relates to students' comprehension levels or levels of vocabulary understanding. There could also be a state or nationwide study to see if these findings are true for the state of Missouri or United States as a whole.

Professional development needs to occur across the state to ensure teachers are aware of the effects working with peers can have on a students learning. Programs like buddy reading allows students to directly learn from their peers as well as strengthen their own understanding. Teachers need to understand what Nes Ferrara (2005) stated so clearly, "This approach is based on the assumption that children's cognitive development is promoted and enhanced through their interactions with more advanced and capable individuals" (p. 216). When teachers see the statistical evidence of what a buddy reading program can do for their readers they are more willing to try to adapt their daily schedules to include a buddy reading program. Teachers need the evidence to be confident in their notion that most students learn best when they work with their peers.

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