THIRD GRADERS AS CROSS-AGE TUTORS FOR KINDERGARTEN STUDENTS:
ITS EFFECTS ON READING COMPREHENSION,
FLUENCY, AND ATTITUDES

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Hillary Chapman
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ABSTRACT

THIRD GRADERS AS CROSS-AGE TUTORS FOR KINDERGARTEN STUDENTS: ITS EFFECTS ON READING COMPREHENSION, FLUENCY AND ATTITUDES

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This study aimed to determine the effects of cross-age tutoring on the reading comprehension, fluency, and attitudes of the student tutors and the attitudes of their tutees. Four research questions were answered by this study which were:

1. How does cross-age tutoring affect reading comprehension for the student tutors?
2. How does cross-age tutoring affect reading fluency for the student tutors?
3. How does cross-age tutoring affect the reading comprehension and fluency for student tutors who have special needs?
4. How does cross-age tutoring affect reading attitudes for the tutor and tutee?

This study was a randomized control trial with 18 participants. Of these 18 students, ten were third graders and eight were in kindergarten. For the study, five of the third grade students acted as tutors for five of the kindergarten students. The five third grade tutors also participated in teacher-led sessions which included session debriefs and direct instruction in tutoring and
comprehension skills. The remaining students acted as a control group. Data were collected using the Standardized Test for the Assessment of Reading (STAR) assessment, Curriculum Based Measurement-Oral Reading Fluency (CBM-ORF), Accelerated Reader quizzes, reading attitude surveys, and ethnographic field notes from the researcher. The data indicated that while there were some positive effects to be seen from the implementation of cross-age tutoring, no statistically significant results were found. Therefore, it was determined that more research should be done regarding this topic before cross-age tutoring should be used to improve the reading skills of the student tutors.
CHAPTER I

Introduction

Purpose of the Study

The focus of this project was the effects of cross-age tutoring on reading fluency, comprehension, and attitudes in the elementary grades. In the third grade, students are expected to begin to learn from their reading as opposed to learning to read. By the end of the third grade, students are expected to “[use] their skills to gain more information in subjects such as math and science, to solve problems, to think critically about what they are learning, and to act upon and share knowledge in the world around them” (Annie E. Casey Foundation, 2010, p.9). According to Chall’s Stages of Reading Development, by the time students are in the fourth grade, they should be reading to learn new ideas (Chall, 1983). This transition causes many struggling readers to fall behind. Students who fall behind they can experience what is known as the Matthew Effect (Cain & Oakhill, 2011). This occurs when students who are not working at grade level by the end of the third grade experience a widening gap in their understanding as they move through higher grades. According to the Annie E. Casey Foundation (2010), up to half of the printed fourth grade curriculum is incomprehensible to students who read below that grade level.

Working with younger students and helping them learn can give students a sense of accomplishment, confidence, and understanding of the content with which they are working. According to Juel (1991), cross-age tutoring can produce positive results in academic achievement and attitude or learning for both tutors and tutees. Because of this, the research questions aimed to determine if cross-age reading tutoring will help struggling readers to
increase their comprehension, fluency, and improve their attitudes towards reading. Galezio, Nyberg, & Orman (1994) studied the effect that cross-age tutoring had on the reading comprehension of average and below average readers. The researchers found cross-age tutoring to increase student achievement in the area of comprehension. In fact, they found that 23 of the 24 participants in their study moved up at least one grade level with only one student staying at the same level (Galezio et al., 1994). Another study which focused on fluency found that tutees’ mean rate of reading fluency grew enough to be considered statistically significant (Wright & Cleary, 2006). This study will specifically measure the success in training students to be tutors to their peers, which other studies have not focused on. This study will also include one student tutor who has special needs and will measure his progress throughout the tutoring.

Gambrell, Palmer, Coddling, and Mazzoni (1996) found that the value students place on reading is critical to their success. The purpose of this study will be to measure the effectiveness of cross-age tutoring in improving the reading motivation, comprehension, fluency of the students participating.

**Theoretical Basis and Organization**

This project was conducted with third grade and kindergarten students in a public elementary school setting. The third grade students acted as the tutors and the kindergarten students were the tutees. One study which involved tutoring concluded that students “improved their literacy over the 8 months and that they became much more interested in talking about texts” (Jacobsen et al., 2001, p. 533). To start, the third grade students determined the reading interests of the younger students. The third grade students were then instructed on how to be a tutor and what norms they were expected to follow. The third grade students went through a few weeks of instruction and practice in tutoring skills when they began working with the
kindergarten students. Once the tutoring began the third grade students chose a book to read with their partner. Guthrie and Wigfield (2000) found that giving student choices increased effort and commitment to reading. The third grade students were expected to choose a book that would interest their tutee. The third grade tutor was also expected to choose a book within their own zone of proximal development (ZPD). ZPD is described as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). In other words, a student working within their ZPD is working at a level between what they can achieve on their own and what they can achieve with support from an adult or more advanced peer. Vygotsky (1978) believed that students who are working within their ZPD would be able to successfully complete a task when given the appropriate assistance. The third grade students practiced reading the story throughout the week and sought guidance as needed to ensure that they were modeling good reading when they read to their partners. The tutoring session started with the third grade student reading to their partner. Finally, the tutee was asked to read their story at least twice through with their tutor. During this time the tutor guided the tutee in reading the story and asked comprehension questions throughout. The kindergarten tutee’s story was a selected Rigby Reader text. At different times throughout the project students were refreshed on good tutoring practices and taught new skills as needed to help their tutee continue to grow as a reader.

The progress of comprehension skills for the tutor were measured throughout the tutoring intervention through the use of weekly Accelerated Reader quizzes. The National Literacy Trust found that “children and young people who use AR tend to enjoy reading more, read more often, read a greater variety of fiction texts and think more positively about reading than
their peers who do not use AR” (Clark, 2014, p. 7). Reading comprehension was measured before the intervention and after it is finished. Reading comprehension was also measured using the STAR Reading assessment. Reading fluency was measured using the CBM for Oral Reading Fluency, which was given before implementation of cross-age tutoring and at the end. Student reading attitudes were measured for both the tutor and tutee using a short survey administered before and after implementation of the tutoring.

This study focused on reading and the intended audience is elementary age general and special education teachers. The study was used to measure the effectiveness of cross-age tutoring in increasing attitudes towards reading, comprehension, and fluency skills for tutors. Reading attitudes were also measured for the kindergarten tutees. As the above research indicates, cross-age tutoring is shown to be effective in increasing reading comprehension and fluency for tutees. Through this study, four research questions were answered. How does cross-age tutoring affect reading comprehension for the student tutors? How does cross-age tutoring affect reading fluency for the student tutors? How does cross-age tutoring affect the reading comprehension and fluency for student tutors who have special needs? How does cross-age tutoring affect reading attitudes for the tutor and tutee?

Significance of the Study

The significance of this study is that if cross-age tutoring is in fact proven to be effective in improving fluency and comprehension skills it can be used to help students who are struggling in these areas. If no positive findings are discovered educators will have the knowledge that this intervention should not be used with the intent of improving scores of the student tutors, though previous research has indicated that it is successful for tutees (Leung, 2015). This can be especially important for students in the third grade. Students not reading at grade level by the
third grade have been found to have difficulty comprehending the written material central to their education process, with educational demands becoming increasingly difficult (Lesnick, George & Smithgall, 2010). There have been many researchers who have studied the effects of cross-age tutoring on student achievement, and even some who have linked that specifically to reading comprehension and fluency. However, what makes this study unique is that it will be focused on the effects on reading comprehension and fluency for the students who will be trained as tutors. Many studies have looked at the effects on tutees, but few have considered the effects on student tutors. Also, this study will include a student tutor who has special needs and will determine how effective cross-age tutoring is in helping him improve in reading comprehension and fluency.

**Limitations of the Study**

One limitation in this study is in that only two classes were involved. Though the classes were diverse in reading level, socio-economic status, and ethnicity it would be better to have multiple classes involved in the study to collect more valid results. Another limitation is in that it could be difficult to coordinate time in each week for the third and kindergarten students to meet together for reading. It would be ideal for the students to get to work together at least twice a week but realistically, they only meet once a week. The short duration and small sample size of the study also cause some limitations. Because only eighteen students in total were used in the study, only a small amount of data were available for analysis. Also, the students were only able to participate in eight tutoring sessions and with such a short intervention time the effects may have been limited.
Definition of Terms

Broad Reading: The most general measure of reading achievement including the aspects of letter-word identification, fluency and comprehension (Ciancio et al., 2015).

Zone of Proximal Development (ZPD): The difference between what a learner can do without help and what he or she can do with help (Vygotsky, 1978).

Cross-age tutoring: An educational model that builds on peer support and mentoring to assist young people to enhance social relationships, develop cognitive skills, and promote positive identity development (Collier, 1995).

Reading Comprehension: The ability to fully understand the meaning within a text (National Reading Panel, 2000).

Reading Fluency: The ability to read quickly, accurately, and with a natural intonation (National Reading Panel, 2000).

Peer Assisted Learning: A system in which students are trained in coaching techniques and use them to assist other students (Galezio, Nyberg, & Orman, 1994).

Reading Attitudes: Self-concept and value placed on reading (McGeon et al., 2015).

Tutoring: A person employed to instruct another in some branch or branches of learning.

Tutor: A person charged with the instruction and guidance of another.

Tutee: U student of pupil of a tutor.
CHAPTER II

Literature Review

Introduction

This study aimed to determine the effectiveness of cross-age tutoring on increasing the reading comprehension, fluency, and attitudes of third grade reading tutors. The study also aimed to determine the effects of tutoring on the attitudes of the kindergarten tutees. It has been demonstrated by researchers that reading, and especially reading in the third grade, is crucial to students success and achievement throughout their lives (e.g. Hernandez, 2011; Workman, 2014). In fact, “If children do not have proficient reading skills by third grade, their ability to progress through school and meet grade-level expectations diminishes significantly” (Workman, 2014, p. 1). It has also been determined that reading intervention programs are crucial in improving student reading attainment and attitudes with peer-tutoring being listed as an especially useful strategy (Druyor, 2012; Flynn, 2012).

In this review of the literature, first background information will be provided regarding these topics. Then, cross-age tutoring will be described in detail. Next, reading in general will be described. Following the information on reading, comprehension and fluency more explicitly will be discussed. The importance of third grade will be defined subsequently. The research regarding reading attitudes will be reviewed lastly. Finally, a conclusion and the implication for future research will be discussed.
Background

The topic of reading, and ways to improve reading in students, has been researched time and again due to the significance of the matter. “Reading as a skill permeates all curriculum areas – literature, social studies, science, mathematics, health, music, art, and physical education to some extent” (Ediger, 1994, p. 2). It has been found that cross-age tutoring can positively affect the reading attainment and attitudes of students. Leung (2015) found that cross-age tutoring can be linked directly to positive effects on student achievement. Cross-age tutoring and peer tutoring are described in many research studies described below. Cross-age tutoring can be described as students working as tutors for their younger age peers. In contrast, peer-tutoring or peer teaching would comprise of students tutoring their same-age peers. Juel (1991) also studied these effects and found that reading attitudes are positively affected by tutoring as well. It has also been found that reading attitudes are directly linked with reading achievement. In fact, “there is a substantial body of literature demonstrating a consistent relationship between children’s attitude towards reading and reading attainment” (McGeon et al., 2015, p. 390). Reading comprehension and fluency have also been found to be indicative of student reading attainment. Reading fluency has been supported to positively affect both broad reader scores and reading comprehension scores (Hofstadter-Duke & Daly, 2011; Ring, Barefoot, Avrit, Brown and Black, 2012). Finally, third grade has been known to be an important time in a student’s education (Cain & Oakhill, 2011; Workman, 2014). The research described below provides evidence regarding the cross-age tutoring, reading, attitudes, third grade year and how it all can affect students long after they pass this grade.
Cross-Age Tutoring

As students move through the grades in school it becomes especially important that they do not fall behind in their reading ability. For the first few years of school students’ reading activities focus mostly on learning how to read (Annie E. Casey Foundation, 2010). When students are learning to read they are focused on learning and practicing the concepts of reading such as concepts about print, letter-sound awareness, fluency, and comprehension. However, as students enter the higher grades, this focus shifts from “learning to read” to “reading to learn”. When students are reading to learn they are using their skills to gain information, learn new skills, think critically about what they are learning, and share their knowledge (Annie E. Casey Foundation, 2010). In fact, students who are reading below grade level by the third grade will begin to have difficulty comprehending the written material vital to their education in the grades that follow (Lesnick, Goerge & Smithgall, 2010). One intervention which has been researched previously to determine its effectiveness is cross-age tutoring. The research reviewed in this literature review aims to determine the effectiveness of cross-age tutoring in helping students escalate their reading achievement. Research has shown that cross-age tutoring would be an effective intervention for increasing student achievement in reading, specifically in the areas of fluency and comprehension (Anderberg, 2013; Chemidlin, 1999; Leung, 2015). Following this paragraph literature surrounding cross-age tutoring will be reviewed.

Cross-Age Tutoring Effects. Leung (2015) studied the effectiveness of cross-age peer tutoring using a meta-analysis of previous research. This meta-analysis found evidence of the positive effects of peer tutoring, specifically in reading and mathematics, on the academic achievement of tutees (Leung, 2015). The study determined, specifically, which program features were most effective in increasing academic achievement. The features that were found
to be significant in increasing achievement could be implemented by teachers to help ensure program success. Some of the features found to be most vital were structured tutoring, gender composition (same-sex groupings), parental involvement and unstandardized testing (Leung, 2015). Overall, this study found cross-age tutoring to be effective in increasing achievement among tutees.

According to Juel (1991), cross-age tutoring can produce positive results in academic achievement and attitude or learning for both tutors and tutees. Juel’s research focused on a cross-age tutoring program in which she paired student athletes at the University of Texas, Austin with elementary students who were having problems trying to read. The tutors worked with students twice a week for 45 minutes. Once a week the tutors attended a class in which they discussed tutoring and studied reading acquisition. Success of the program was evident for teachers, parents, and district faculty. Greater strides were made for tutees in working with the student athletes than could even be seen in working with more experienced tutors (Juel, 1991). Juel (1991) found that students working with these less experienced tutors made greater progress due to the fact that the tutors acted as role models for the kindergarten students, many shared a culture with their tutees, and the tutors understood their tutees struggle as many had struggled with reading themselves. Of the first grade children who participated in this study, only two did not move into a higher reading group (Juel, 1991). The 27 students were also given the Iowa Test of Basic Skills (reading comprehension subtest) resulting in the tutored students producing a mean score at the 41st percentile while the non-tutored students’ mean score was at the 16th percentile (Juel, 1991). This study showed clear evidence in the success of cross-age tutoring when disadvantaged students are paired with student athlete tutors.
Another study on the effectiveness of cross-age tutoring focused on improving the reading and social skills of 29 students living in urban Illinois (Hall, Kohlbacher & Zimmerman, 1993). “The data indicated pre to posttest improvement in the following [behavior checklist]categories: Talks out of turn, verbally abuses peers, defies authority, off task, out of seat, lack of motivation, lack of responsibility, and incomplete assignments” (Hall et al., 1993, p.38). Standardized testing for these students showed them to be well below average before tutoring was implemented. The students involved in the tutoring program met in pairs with students who had a different reading ability to complete a variety of reading comprehension activities. The data indicated significant growth for over half of the participants in the target group (Hall et al., 1993). Hall et al. (1993) found this growth to be especially notable considering that 52% of the targeted students were special education or Chapter 1 students.

Mieux (1993) also found cross-age tutoring to be effective in improving study skills, thus improving academic achievement for at-risk students. Before intervention, only one student was able to master 20 of 25 questions on the Protege Reading Test (Mieux, 1993). Mieux administered a posttest after the cross-age tutoring was implemented which resulted in 21 of the 26 students mastering 20 of the 25 questions. These results showed great improvement for at-risk students through small group intervention and cross-age tutoring. As a part of this study teachers were asked to complete a study skill survey to assess students’ study skills. The results of the post survey indicated that the defined study skills all improved since the pre-survey was taken. Overall, the results of this study showed improvement for at-risk students in both the area of academic achievement and in the appropriate use of study skills.
Chemidlin (1999) conducted a study to determine the effect of cross-age tutoring on reading achievement for kindergarten and 5th grade students. This study lasted eight weeks during which tutors and tutees met four times a week. A control group was also studied in order to compare achievement. The outcomes of the Burns and Roe Informal Reading Inventory indicated that participating students had fewer reading skills mistakes on their posttest than their pretest, they also determined that seven out of ten tutors went up in their independent reading level (Chemidlin, 1999). The posttest scores also indicated significant changes in the areas of sequence, cause and effect, inference, and vocabulary (Chemidlin, 1999). Chemidlin stated that these changes can be attributed to the admiration, support, and confidence building that students gained through the cross-age tutoring program. Though the areas of main idea and details showed significant growth for the target students, there was significant growth in enough categories for cross-age tutoring to be considered effective.

**Reading**

Reading is crucial to all different aspects of education in one way or another (Ediger, 1994). There is no doubt that reading plays a huge role in the education of students and their success in school. Cooper, Moore, Powers, Cleveland and Greenberg (2014) found that there is consistent evidence of the link between early reading and later academic success. Furthermore, there is a great deal of research which indicates the different aspects if reading which must be mastered if a child is to become a successful reader, and match the abilities of his/her peers. It has been found that there are five key concepts that can be used as a sort of checklist for achieving early reading success in children (National Reading Panel, 2000; Rickenbrode and Walsh, 2013). The five concepts described in this research are phonemic awareness, phonics, fluency, vocabulary and comprehension. Three of these concepts (phonemic awareness, phonics
and vocabulary) will be reviewed below. The other two, fluency and comprehension, will be discussed thoroughly in following sections of this literature review. Another aspect of reading instruction which will be described in the following research is the importance of teacher use of reading intervention strategies with struggling students. In a study completed by Connor et al. (2013) they found that students who participated in instructional reading intervention showed higher reading achievement than their peers in the control group. In the following literature review the topics described above will be discussed.

Phonemic awareness is considered the capability to differentiate and manipulate the 44 fundamental sounds (phonemes) that comprise spoken language (Rickenbrode & Walsh, 2013). Rickenbrode and Walsh (2013) also state that phonemic awareness is one of the greatest predictors of how readily children will learn to read in the first few years of schooling. In one study done by Hennenfent and Russel (2001), it was stated that many students do not enter school with phonemic awareness skills and appear to be unable to catch up without the use of direct instruction. They found this to be especially important for at risk students (Hennenfent & Russel, 2001). In the study done by Hennefent and Russel (2001), the researchers found that using direct instruction to help students improve their phonemic awareness skills bore positive effects on student achievement. Direct instruction in phonemic awareness skills allowed at risk students to catch up with their grade level peers thus fostering future reading success (Hennefent & Russel, 2001). Wren (2000) found that phonemic awareness plays a vital role in developing further reading comprehension skills. In his study Wren (2000) stated that explicitly teaching phoneme awareness enables later reading achievement. These studies have shown the importance of phonemic awareness skills for reading development. Without a strong grasp of such skills
students will not have the ability to progress academically at the same rate as their grade level peers.

Another important aspect of reading acquisition is phonics. Phonics is described as awareness of the correspondence between the sounds (phonemes) and the letters or combinations of letters (graphemes) in language (Rickenbrode & Walsh, 2013). According to Rickenbrode and Walsh (2013) poor skills in phonics hinder the development of fluent reading which leads to a host of academic struggles. In a study done by Lesgold and Curtis (1980) it was found that there was clear evidence that poor readers are slower at tasks that involve retrieving a verbal/phonological code in response to a visual stimulus. Huang (2008) found phonics to be an essential skill in reading acquisition. Huang suggested systematic phonics instruction as particularly beneficial to students with learning disabilities or low socioeconomic status (2008). Konza (2014) described the significance of phonics for both fluency and comprehension skills. According to Konza (2014) in terms of effecting fluency and comprehension, phonics skills should be taught to the point of automaticity so as to be recognized immediately by the reader. Konza suggests that explicit phonics instruction is indispensable for many beginning readers and all struggling readers (2014). This research provides evidence as to the importance of phonics and phonics instruction which is a skill students need to have mastered in order to decode words.

Vocabulary is another aspect of reading which is thought to be a crucial piece in student success. According to Wren (2000) vocabulary is essential in understanding language and how to communicate complete and meaningful ideas. It is important for children to have oral vocabulary, when they are beginning to read, and build their reading vocabularies in order to comprehend a text (Rickenbrode & Walsh, 2013). According to one study performance differences in vocabulary were found to increase over time between good and poor readers (Cain
This study also found that reading experience and comprehension can be used to predict vocabulary skills later in life (Cain & Oakhill, 2011). Corbett (2009) found vocabulary instruction to be an essential component for children learning to read. Corbett cited three reasons why vocabulary is so critical to reading success. First, she noted that “comprehension improves when the meaning of the word is understood” (Corbett, 2009, p. 1). She also found vocabulary to improve listening, speaking, reading and writing. Finally, Corbett described that when vocabulary improves academic and social confidence and competence improves (2009). The International Reading Association also conducted research surrounding the aspect of vocabulary and reading acquisition. It was found that vocabulary instruction to be an area of importance in reading instruction (International Reading Association, 2001). It was also determined that pre-teaching vocabulary can lead to increases in both vocabulary and comprehension achievement for students (International Reading Association, 2001). It is evident that there is a strong correlation between vocabulary and reading acquisition. This, along with phonemic awareness and phonics instruction are considered a vital aspect of reading instruction in any classroom.

**Reading Comprehension**

Comprehension is an aspect of reading that is extremely important when it comes to student achievement (Ciancio, Thompson, Schall, Skinner, & Foorman, 2015). Reading comprehension is considered to be the product of linguistic understanding and decoding skills (Melby-Lervag & Lervag, 2014). Students who comprehend the text with which they are presented are able to not only read the information, but really understand the content being presented. It has been found that reading comprehension can affect broad reading ability greatly. Researchers have also determined that implementing interventions, including direct instruction, should be utilized for reading comprehension. Reading comprehension is a subject of great
importance for teachers to understand thoroughly and these aspects of comprehension will be discussed in the following pages.

In a study conducted by Ciancio, Thompson, Schall, Skinner and Foorman (2015) 1425 first through third grade students participated in a program measuring how reading comprehension effects broad reading rate. In this study, students were randomly assigned to three (easy, medium and hard) grade level passages. Once they finished reading, students were asked 10-12 comprehension questions which included regarding the previously read passage. The questions included both literal and inferential responses and were read aloud to the students and their answers were recorded by the assessor. This research found that there was a significant correlation between the broad reading scores and reading comprehension abilities of the involved students (Ciancio et al., 2015). They also found these scores to be consistent with previous research. This study provides clear evidence as to the positive effects that reading comprehension skills have on overall reading ability.

Interventions focusing on reading comprehension have been found to be very effective in helping students improve their reading ability. Melby-Lervag and Lervag (2014) studied reading intervention programs that target reading comprehension directly and those that target it indirectly. They reviewed many meta-analyses and studies involving randomized control trials to determine the effectiveness of the intervention techniques. Melby-Lervag and Lervag (2014) chose studies after careful consideration to ensure the validity of their results and used only studies whose results were the most valid. Through this study it was determined that compared to students not involved in comprehension interventions “Overall, children learn more of what they read following instruction that targets reading comprehension skills…” (Melby-Lervag & Lervag, 2014, p. 2). It was found that strategies that target comprehension indirectly had only a
small to moderate effect on comprehension skills (Melby-Lervag & Lervag, 2014). This study clearly shows the importance of having interventions in place which directly target reading comprehension skills.

Suggate (2014), did a meta-analysis on the long-term effects of reading comprehension interventions among other interventions. Through this study it was found that comprehension interventions are more effective from around grade three and above than they are in younger grades (Suggate, 2014). Reading comprehension, phonemic awareness, fluency and phonics were chosen to be studied for long-term effects due to the evidence provided regarding their short term effectiveness (Suggate, 2014). Two or more different interventions were compared with one control group through 16 studies (Suggate, 2014). Suggate (2014) found that after just less than one year there was still a small effect remaining from the reading comprehension intervention. They also found that the findings vigorously indicated that comprehension interventions have positive effects after implementation on a number of skills (Suggate, 2014). This study provided evidence as to not only the short-term, but the long-term positive effects that reading comprehension interventions produce.

Finally, in a study by Parker (2014) the effect of direct instruction in reading comprehension skills on students with learning disabilities was investigated. In this study students from grades 6-8 who qualify as students with a learning disability in reading comprehension were chosen to participate in one of two direct instruction programs. This study found both direct instructions programs to be successful in delivering instruction regarding the comprehension of texts (Parker, 2014). Parker found that both of the treatment groups “showed improvements as indicated by academic gains on all three subtests as found by a review of mean scores.” (Parker, 2014, p. 85).
Overall, the evidence provided in this review of the literature showed clearly the importance of reading comprehension in broader reading skills, reading comprehension interventions and direct instruction in reading comprehension. In the first study by Ciancio et al. (2015) it was supported that reading comprehension skills directly affect broad reading ability. The two following studies discuss the importance of the implementation of reading comprehension interventions with struggling students. Each study provided evidence as the effectiveness of reading comprehension interventions on improving reading comprehension scores. Finally, the effect of direct instruction strategies on reading comprehension skills was discussed. The research strongly indicates that direct instruction strategies can be successful in helping students, especially those with reading comprehension learning disabilities, improve their reading comprehension skills. The research shows the importance of reading comprehension skills and demonstrates what educators can be doing to improve these skills for students.

**Cross-Age Tutoring and Comprehension.** Researchers have studied the effects of cross-age tutoring on reading comprehension. Galezio et al. (1994) studied the effect that cross-age tutoring had on the reading comprehension of average and below average readers. Similarly to the information gained focusing on fluency, the researchers found cross-age tutoring to increase student achievement in the area of comprehension. Through this study, Galezio et al. (1994) found that 23 of the 24 participants in their study moved up at least one grade level with only one student staying at the same level. The effect on achievement in reading comprehension for students who participated in cross-age tutoring was very positive.
Another study which consider the effect of cross-age tutoring on reading comprehension found that “…comprehension scores on the standardized *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS) Oral Reading Fluency (DORF) passages were higher during intervention than at baseline” (Kourea, Cartledge, & Musti-Rao, 2007, p.95). The study focused on 2nd and 3rd grade students in an urban elementary school. All of the students who participated in the study were considered at risk for reading failure and over half the students in the class received special education services. During the intervention the general education and special education teachers worked together to implement the tutoring program. Reading comprehension was measured using the cloze procedure using DORF reading passages. Kourea et al. (2007) found that students achieved amplified comprehension gains on the DORF passages during peer tutoring. This study showed the effectiveness of cross-age tutoring in increasing the reading comprehension of students who are at risk for reading failure.

Collier (1995) implemented a cross-age tutoring program with 4th and 5th graders in a rural community in the Southeastern part of the United States. The tutors in this study met with researchers for instruction in reading comprehension strategies. During the tutoring cycles the students met with researchers five days consecutively with two of those days consisting of tutoring. On the other days the students were learning strategies, preparing activities for tutoring, and sharing results from the tutoring sessions with the researchers. In order to track the progress of this program the researchers used the reading comprehension subtest of the Kaufman Test of Educational achievement which “has been demonstrated both valid and reliable for use in research studies” (Collier, 1995, p.64). The results for this assessment showed the growth that students made in reading comprehension through participation in a cross-age tutoring program. Students were found to make significant grade equivalency gains between the pre and posttest,
with some students making over one year’s worth of growth (Collier, 1995). Collier found that the tutors made even more significant comprehension growth than their tutees. Collier attributed this growth to the daily practice, both with the researcher and with their tutors, of comprehension skills. It is also stated by Collier that improved self-confidence and self-esteem contributed to the improvement of both the tutors and tutees.

Cross-age tutoring was shown by the above studies to be an effective intervention for improving reading comprehension. These studies involved students from different grade levels, different tutoring programs, and different assessment tools. They also focused on the effects for tutees leaving the question of the effects in reading comprehension for the student tutors.

**Reading Fluency**

Much like reading comprehension, reading fluency is a topic of great importance in terms of reading instruction and achievement. In the following literature review reading fluency will be discussed in terms of its use in predicting emerging reading ability, instruction for students at-risk of reading failure, use of evidence-based practices and use of interventions including peer-tutoring. Fuchs claimed that “Oral reading fluency has been identified as one of best predictors of academic success for school-age children” (as cited by McCracken, 2013, p. 41). Also, according to Hofstadter-Duke and Daly (2011), fluency is an important prerequisite to independent comprehension skills. Ring et al. (2012) note the well documented importance of reading fluency in the comprehension of readers. Overall, the importance of fluency instruction is crucial in the success of readers. When children do not attain the essential skills related to reading acquisition, reading disability is likely to occur. (Burke, Hagan-Burke, Zou & Kwok, 2010).
In a study conducted by Burke et al. (2010), kindergarten students from one large primary school in a rural district of Georgia were selected for the sample. In this study the researchers focused on creating a structural equation model of reading acquisition (Burke et al., 2010). The results of this study support emphasizing fluency in kindergarten. Positive effects were found between fluency and overall reading ability. Burke et al. found that “the test indicated that the alphabetic construct fully mediated the relationship between phonological fluency and early reading ability.” (Burke et al., 2010, p. 394). According to the researchers this study accentuated the prominence of fluency in reading acquisition (Burke et al., 2010). In particular, the researchers noted the importance of fluency in predicting reading ability for kindergarten students. Fluency is a crucial aspect of reading acquisition and its prominence in reading abilities is evident. This research indicated a clear connection between fluency and overall reading ability in students.

In another study by Ring et al. (2012), two fluency programs were compared in a cluster randomized clinical trial of students considered at-risk for reading failure. Fluency has been determined to be one of the necessary elements of effective reading instruction (Ring et al., 2012). Ring et al. (2012) found that students with reading difficulty often struggle to read fluently despite the presence of fluency in classroom instruction. It is suggested by in this research that a Response to Intervention (RTI) approach be used to supplement fluency instruction for these students. Eighty-eight students in grades 2-5 were enrolled in this study. The results of this study indicated that students participating in either RTI program showed modest but reliable gains in reading fluency (Ring et al., 2012). The study also determined that younger students consistently showed greater gains across most of the measures of reading skills (Ring et al., 2012). This research makes evident the positive effects of RTI programs on reading fluency.
with at-risk students. These effects were found to be even more evident in students who participated in the study at a younger age. Conclusively, RTI programs focusing on fluency instruction have positive effects on both student reading fluency and broader reading achievement.

In a similar study, McCracken (2013) studied the impact of evidence-based RTI programs on reading fluency scores for 1-3 grade students who had a low socioeconomic status. The participants for this study were selected from a rural district in Pennsylvania. One school from which the participants were recruited implemented RTI programs for reading fluency in their instruction, while the other did not. This RTI program involved three evidence-based practices which McCracken believed to be crucial in its success. These practices included a multi-tiered support system for students struggling with reading, extra time built into the schedule to support struggling readers, and ensuring that core reading instruction is being delivered as it was intended to be. The study discovered a difference in the scores of first and second grade students who participated in an RTI program compared with those who did not, with those participating in the program attaining significantly higher scores (McCracken, 2013).

Hofstadter-Duke et al. (2011) studied the effects of peer-delivered reading intervention on the oral reading fluency of first grade students who had been reported as having poor reading fluency. In this study same-grade peers were chosen to act as tutors and were trained to lead other students in a structured six week intervention program (Hofstadter-Duke, 2011). According to the researchers an intervention can offer maximum benefits to the learner when it comprises the right amounts of practice, error correction, antecedent prompting strategies, and reinforcement (Hofstadter-Duke et al., 2011). At the conclusion of this study Hofstadter-Duke et al. (2011) found that performance increased following the introduction of peer-tutoring across all
passages. They also found that these improvements were maintained for passages after tutoring on that specific passage was no longer delivered. In conclusion, this study provided a clear indication of the positive effects that peer-delivered reading fluency interventions can have on student performance. Not only are the effects significant, but they are lasting as well.

The research offers educators with vital information regarding reading fluency and student reading ability. In the research reviewed above it is made clear that reading fluency is directly correlated to student reading abilities. It is also made evident that RTI interventions for reading fluency are an important aspect of reading programs in any school, but especially ones with at-risk students. Finally, it was demonstrated that peer-delivered fluency interventions helped students improve their fluency scores and that those improvements are maintained after the intervention is no longer implemented. Reading fluency is a crucial aspect of reading and instruction focused on improving fluency skills for children is considered to be an integral piece of any reading program.

**Cross-Age Tutoring and Fluency.** Anderberg (2013) is one researcher who studied the effectiveness of cross-age tutoring on student reading ability for first and second grade students. This study hoped to provide research with the “methodological rigor to generalize the findings” which previous studies lacked (Anderberg, 2013, p. 54). In this study high school students were trained as Tier II interventionists and served at a school where no other interventions were available to students. “The study used an experimental design comparing a randomly assigned control group to the experimental group who received tutoring” (Anderberg, 2013, p.57). The students involved in this study were evaluated on fluency using the Woodcock Reading Mastery Test, word identification subtest (Anderberg, 2013). The results of this assessment indicated that the treatment group’s fluency improved significantly faster than the control group (Anderberg,
2013). This study showed evidence that cross-age tutoring can be effective in increasing student achievement in reading, specifically in the area of fluency.

Wright and Cleary (2006) designed a cross-age tutoring program to evaluate the effectiveness of a program in which older students from other classes were chosen to tutor students who were dysfluent readers. There was a diverse student population in the schools which were located in an urban district. The progress of both the tutors and tutees were tracked using the Curriculum-Based Measurement (CBM) probes (Wright & Cleary, 2006). Peer tutors were trained using a four-session scripted training. The tutee’s mean rate of reading fluency showed significant growth (Wright & Cleary, 2006, p.103). The tutors were also found by Wright & Cleary (2006) to show significant growth in their words read per minute. However, the tutors’ rate grew at a rate significantly lower than their tutees. Wright & Clearly believe this to be due to the fact that the tutors were working at below their reading level while their tutees were working at their instructional reading level. Cross-age tutoring was shown in this study to be operative in increasing achievement in reading fluency.

Galezio, Nyberg & Orman (1994) studied how cross-age tutoring can increase achievement in average and below average readers in a multicultural and multi-socioeconomic district in Chicago. The students selected for this study comprised of 1st, 2nd and 6th graders. The students were instructed in their roles and assigned student pairs. The researchers then prepared mini-lessons, and coordinated 20 minutes each week to conduct the peer tutoring. Student achievement was monitored through the use of basal reading tests administered throughout the study. Both the tutors and tutees were given instruction in social skills before the implementation of the tutoring. The number of first, second, and sixth graders who were reading at or above grade level increased significantly by the end of the study (Galezio et al., 1994).
Overall, it is clear that cross-age tutoring had positive effects on students in terms of reading fluency. Each of the studies above described results which indicated the positive significance of using cross-age tutoring to improve reading fluency. Though the studies differed in that they involved students of different ages, different tutoring practices were used, and different assessments were used to identify results, each study found the effects to be positive. The one question that is left unanswered by these studies regards the effects on the tutors. Each study determined the effectiveness of cross-age tutoring for tutees, but none considered the possible effects for tutors.

Another topic that has been found to have profound effects on reading acquisition is the use of differentiated instruction and reading interventions. Leveled literacy instruction has been demonstrated especially useful in helping struggling readers. One aspect of reading intervention that has been demonstrated to be successful in increasing student achievement is differentiated instruction. Valiandes (2015) studied the effects of differentiated instruction on students’ learning in mixed ability classrooms. Valiandes recruited 479 fourth grade students and 24 teachers. It was determined that students who participated in differentiated instruction classrooms made more progress than those where differentiated instruction was not used (Valiandes, 2015). In one study done by Flynn (2012) third grade students were placed in a literacy intervention group based on need. All of the students who participated in this study were able to improve their reading scores after being placed in the intervention group. Eighty percent of those students had double digit improvements in their reading scores (Flynn, 2012). Flynn (2012) reported that four of the students participating in the study were released from the program at the end of a twenty week cycle due to reaching grade level equivalent. Another study was conducted with first, second and third grade students by Connor et.al (2013). The
researchers analyzed the effects of literacy intervention on student reading achievement and how that effect increased as years in intervention increased. Connor et al. (2013) found that the greater the number of years a student spent receiving literacy intervention the greater the effects on their reading achievement were. Similarly, researchers Mokhtari, Neel, Kaiser, and Lee (2015) studied the effects of a yearlong supplemental reading intervention with a small group of first graders. These researchers found significant differences between the students who participated in the reading intervention as opposed to their non-tutored peers. In fact, they found that 9 out of 10 of the tutored students achieved higher scores on the Gates-MacGinitie test taken in the spring as compared to their fall scores (Mokhtari et.al, 2015). It has been made evident through previous research that literacy intervention has positive effects on student reading achievement. However, though literacy intervention has been proven to be effective it is not always possible for educators to implement. Due to limited resources and time constraints teachers are not always able to provide leveled literacy instruction for all of their students.

In conclusion, research has shown clear evidence that phonemic awareness, phonics, and vocabulary are key aspects of any reading program. It has also been stated that fluency and comprehension are crucial to broad reading achievement. It is evident through the review of research that implementing reading intervention is very successful in improving students’ reading abilities. This intervention was found to be especially useful in helping struggling students improve their skills. Not only was intervention found to be effective in improving reading skills, but differentiated reading instruction specifically was also found to be positive for achievement. Overall, reading is a subject of highest importance in education (Ediger, 1994). It has been stated that reading ability effects all other subject areas, especially as students climb in grade levels. This research is extremely useful for teachers as it gives them the evidence behind
their pedagogical selections (Hernandez, 2011). Educators can use the research described here to decide the best instructional strategies for teaching reading.

**Third Graders**

Third grade has been demonstrated time and again to be a pivotal point in children’s education. This has been demonstrated to be especially true in terms of reading. Workman (2014) found that an important shift takes place in reading during the third grade. This shift happens as students establish their basic reading skills and begin to use them for more complex learning (Workman, 2014). Similarly, students who struggle with reading in the third grade can experience a widening gap in their skills as they progress through higher grades (Cain & Oakhill, 2011). This struggle has even been found to follow students through high school thus affecting their graduation (Hernandez, 2011). Given the implications of this information, it is clear that third grade is a critical year for students in terms of reading and future achievement. The importance of the third grade year and its possible effects will be discussed in the following review of literature.

“If children do not have proficient reading skills by third grade, their ability to progress through school and meet grade-level expectations diminishes significantly” (Workman, 2014, p. 1). According to Workman (2014), there has been a rush of new policies passed regarding reading in the third grade as policymakers have begun to realize its potential effects. They have found that the most effective policies carry out a comprehensive approach that starts with early, high-quality instruction and swift, effective interventions (Workman, 2014). Workman also discusses the need for high-quality, well-trained educators (2014). The information provided by Workman provides a clear outline for ensuring that students are performing at grade level by the end of the third grade. This research makes it clear that grade-level reading skills by the end of
third grade have a significant effect on student performance over the years. Workman states that Students who are not reading proficiently by third grade are considerably less likely to graduate high school on time (Workman, 2014).

Similarly, Hernandez (2011) studied the effects of third-grade reading on high school graduation rates. In this longitudinal study Hernandez (2011) recruited almost 4,000 students to study how reading proficiency in third grade can affect graduation rates for students. The study used a national database of students born between 1979 and 1989 and measured their reading success using the Peabody Individual Achievement Test focusing on the Reading Recognition subtest (Hernandez, 2011). The results of this study found reading achievement to be greatly correlated with graduation rates. It was determined that “One in six children who are not reading proficiently in third grade do not graduate from high school on time, a rate four times greater than that for proficient readers” (Hernandez, 2011, p. 3). Hernandez (2011) also discovered that these rates are highest among the lowest reading ability students. When comparing dropout rates Hernandez (2011) found that the lowest readers represented a significantly larger number of students, with that number decreasing for students with basic reading skills and even more for students who read proficiently. This research indicated that reading proficiency at the end of third grade is clearly crucial in terms of future success.

Not only can reading proficiency in the third grade predict success in later years, but issues with reading have been found to increase over time after third grade as children progress through higher grades. Cain and Oakhill (2011) studied this effect commonly known as the Matthew Effect. The Matthew Effect has been described as the occurrence in which performance differences between good and poor readers grow over time (Walberg & Tsai, 1983). The longitudinal study by Cain and Oakhill (2011) examined the Matthew Effect in reading for
students with good and poor reading starting in third grade. The researchers recruited 102 children in this study and data were collected and reported in grades 3, 9 and 11 (Cain & Oakhill, 2011). The students participated in a reading ability assessment at each time point. The results of the study showed that students with specific reading comprehension difficulties showed slower rates of vocabulary growth than their peers the same age that had good reading comprehension (Cain & Oakhill, 2011). This study provided evidence of the lasting effects that reading in third grade has on student success.

Several factors have been demonstrated to predict reading comprehension skills in the third grade. One study by Tighe and Schatschneider (2014) examined, and rank ordered, the influences of some cognitive predictors to reading comprehension. This study involved 215 third graders from low, middle and high socioeconomic schools in Florida (Tighe & Schatschneider, 2014). Students from this sample were randomly selected to be tested to assess reading comprehension. Results of this study indicated that “fluency and verbal reasoning were the most important predictors of third grade reading comprehension” (Tighe & Schatschneider, 2014, p. 120). This study clearly described the importance of fluency instruction in the third grade. As fluency was found to be one of the two most significant predictors of reading comprehension for third graders, it is vital that educators are implementing effective fluency instruction in their classrooms.

Each of the studies discussed above provided key information for educators regarding to importance of the third grade year and reading for children. Third grade has been demonstrated to be a central time in children’s education as their reading success at the end of third grade directly correlates with graduation rates. Reading difficulties have also been demonstrated to increase in the years after third grade with students falling more and more behind in their
abilities. Finally, it has been shown that in the third grade fluency and verbal reasoning are the strongest predictors of reading comprehension skills. Overall, this research provides educators with reasons why third grade is crucial to students, how struggles in third grade can affect students later in life and what concepts should be focused on in order to help students improve in their comprehension skills in third grade.

**Attitudes**

Students’ attitudes towards reading are a subject that has been becoming increasingly popular over time. In fact, “there is a substantial body of literature demonstrating a consistent relationship between children’s attitude towards reading and reading attainment” (McGeon, et al., 2015, p. 390). With this new information coming to light it becomes increasingly important for teachers to understand the effect that reading attitude can have on student performance, and how to facilitate positive attitudes towards reading in their students. In this review student attitudes and ways to facilitate them will be discussed in detail. First, the effects of reading attitudes on achievement will be discussed followed by a study regarding effective instruction and the attitudes and achievement of low-performing students. Finally, one study will be discussed which aims to determine the success of reading partnerships on attitudes and another looking at the Accelerated Reader program’s effects on attitudes.

McGeon et al. (2015) studied 203 students aged 6-7 years old to determine the effect of reading attitudes on reading attainment. The students came from eleven different schools within a rural district. Both male and female students with varied socioeconomic statuses were recruited. A questionnaire was used to determine the reading attitudes of students and a reading test was administered to measure reading attainment. The results of these assessments were compared to determine the influence of reading attitudes attainment among the students. It was
determined that students reading attitudes showed the strongest relationship to reading attainment with students’ reading attitudes also being shown to accurately predict their word reading skill (McGeon et al., 2015). McGeon et al. (2015) also found that their research provided evidence which indicated a decline in reading attitudes as students get older. Overall, this study provided confirmation as to the importance of reading attitudes in terms of reading achievement in students.

In one study, Kaniuka (2010) studied the result of effective instruction on students’ reading attitudes. The study included low-achieving 3rd and 4th grade students in a historically low-achieving suburban school. A comparison school from the same district was used as the control group. These students were slightly higher performing than the treatment students. According to Kaniuka (2010) the treatment school implemented an evidence-based remedial reading program while the control school did not. A 32 item attitude survey was used to determine the reading attitudes of all students. The results of this study showed that the evidence-based remedial reading program had positive effects on the reading attitudes and achievement of students (Kaniuka, 2010). It is clear that effective reading programs are critical in terms of improving the reading attitudes and thus the reading achievement of students, especially those who are low-achieving.

Kindergarten and second grade students were studied by Druyor (2012) to determine the effect that reading partners has on the reading attitudes of the aforementioned students. The study involved one group of students, the control group, who received conventional instruction, and another group, the experimental group, who participated in a partner reading program once weekly. The partner reading program included practice and training opportunities (Druyor, 2012). During the partner program the paired kindergarten and second grade students read to
each other and discussed the books they read. The collected data from reading attitude surveys showed substantial positive attitude growth for the kindergarten students over time (Druyor, 2012). For the second grade students, only moderate positive growth was found (Druyor, 2012). The data discussed above shows the positive influence that partner reading can have on student reading attitudes over time.

Finally, Clark (2014) studied how the Accelerated Reader program (AR) affects reading attitudes in students. The AR program is a computer program in which students can take comprehension tests on books they have read previously. Their scores on these tests can earn them points towards pre-selected goals made by their teachers. AR can be used by students and teachers to monitor progress and understand the reading choices of students. The AR program can also be paired with STAR reading assessments in order to assign students reading levels and goals specific to their needs. This study involved a survey of 29,422 students age eight to 16. Of these students it was determined that about half used AR or were not sure if they did or not and half said they did not (Clark, 2014). The students who were unsure were not included in the study. The results of the survey found AR to have some positive effects on the reading attitudes of students. Clark (2014) found that:

More children and young people using AR also hold positive attitudes towards reading than those who do not use it. For example, more agree that reading is cool compared with children and young people who do not use AR (43.8% vs 35.5%). Similarly, while nearly two-thirds (64.1%) of children and young people who use AR agree that if they are a good reader they’ll get a better job when they grow up, only half (52.6%) of children and young people who do not use AR agree with this.

The use of the AR program was found to have positive effects in developing and maintaining positive reading attitudes in students.
Reading attitudes have been demonstrated to be very important in the reading attainment of students. Reading attitudes has been shown to have significant effects on attitudes towards reading. Another factor that plays a large role in reading attitudes is the use of effective remedial reading programs, especially with students who are considered low-achieving. Finally, in order to facilitate positive reading attitudes educators should consider implementing partner reading programs and AR, as they have been demonstrated to positively affect attitude as well. The information provided above shows clearly how crucial knowledge of reading attitudes is for educators and the above research can help teachers make effective pedagogical choices in terms of reading instruction.

Conclusions and Future Research

Reading is a crucial aspect of instruction and one that cannot be taken lightly by educators. Because of its importance, reading has been the topic of many researchers. The research described in this report shows how cross-age tutoring can benefit students in a variety of ways. Cross-age tutoring has been found to be effective in improving reading comprehension, reading fluency, and social skills among other things. Though there is a bountiful amount of research already out there to describe the effects of cross-age tutoring, this research has also made it clear to me that there is still work to be done in this area. Generally, the research regarding cross-age tutoring showed how beneficial it would be if implemented within the classroom environment, especially in terms of reading instruction.

When reviewing the research surrounding the topic of reading, the information revealed that there are several key aspects of reading instruction. Those topics include phonemic awareness, phonics, fluency, vocabulary and comprehension. The research also indicated the positive effects of reading interventions on student achievement. This research provided
educators with the information necessary to implement the most effective reading instruction for their students.

In addition, the aspects of reading comprehension and fluency were discussed specifically in this review. Research found that reading comprehension is heavily linked to reading attainment. In terms of fluency, it was found that reading fluency is predictive of both broad reading and reading comprehension, specifically. Both reading comprehension and fluency were also found to be positively affected by intervention practices and specifically, peer-tutoring as an intervention.

Other studies reviewed were focused on the topic of third graders specifically. It was found that third grade is an elemental time in a student’s education. Third grade is a point where students who are not performing at grade level will likely continue to fall behind in later grades. Third grade is also the time in which students are expected to use their reading skills to aid in their learning of other topics. Finally, the research regarding third grade found that achievement in third grade can be linked to graduation rates and that student issues in third grade have been found to increase in severity as time goes by.

Lastly, research was reviewed regarding reading attitudes. It was found that reading attitudes can be directly linked to reading attainment. It was also found that reading attitudes can be positively affected by the implementation of remedial reading interventions and the AR program. Finally, it was found that reading partner programs have been positively linked to reading attitudes in students. In conclusion, reading attitudes have been found to be very important for student achievement and the instructional options listed above can help to increase positive attitudes towards reading for students.
There are a few main issues found in a review of the literature. First, most of the research which has been done on cross-age tutoring took place between the 1990’s and the early 2000’s. As a researcher, it is important to compile information that is current. Though the research is not so old that it has become invalid, there is a lack of current research regarding cross-age tutoring. Over time many aspects of education have changed including what we teach, how we are expected to teach it, and the assessment tools available to teachers. As these aspects of education, as well as others, have changed over time it is important to have current research in order to fully understand the possible effects. Another difficulty found is in that the researchers often studied multiple variables. Many of the studies focused on multiple different concepts and that made it hard to find the focus of the research.

The research done here showed that the subject could benefit from future research in the effects of cross-age tutoring specifically on reading comprehension and fluency for elementary students. As both targeted reading interventions and cross-age tutoring specifically have been demonstrated to positively affect both reading attainment and attitudes, this study focused on providing current research on these effects. The research will also focus specifically on reading comprehension and fluency which will make it easier for educators who are trying to find research regarding this topic. As the research above indicated the importance of reading comprehension and fluency on broader reading skills, focusing on fluency and comprehension for the study is a relevant choice. Reading comprehension and fluency are two crucial aspects in broader reading success, especially as students move into higher grade levels, and are therefore the focus of this intervention. Finally, the research will be conducted with only elementary students in two different grades (3rd grade and kindergarten). This will allow the results to not be as affected by the different grade level content of the participants. Also, as third grade has been
demonstrated to be a pivotal time for students, this study will aim to improve student
achievement before they get caught in the pattern of reading issues. As can be seen in the
research described in this literature review the topics of reading including fluency and
comprehension specifically, peer tutoring, reading attitudes and third graders have been
researched by many other studies. However, there is a lack of research regarding how cross-age
tutoring can affect the tutor in the tutoring relationship. Knowing how cross-age tutoring can
affect the tutor in the relationship can help educators make decisions regarding the further use of
cross-age tutoring interventions. If significant positive effects are found for the tutor, educators
will be able to use this intervention with the intention of improving the reading skills of the
student tutors. However if either negative effects or no significant effects are found, then
educators will have evidence that this intervention should not be used with the intention of
improving the reading skills of student tutors. These effects will be the focus of this research
study described below. Overall, there is great potential in the effect of using cross-age tutoring as
an intervention for struggling students, which has also been demonstrated successful in the
previous research described here.
CHAPTER III

Methodology

Overview

This study was designed with the intent to measure the effectiveness of cross-age reading tutoring on the reading comprehension, fluency, and attitudes of the third grade tutors. It was also designed to investigate the reading attitudes of the kindergarten students. The researcher will measure these effects through pre and posttests in reading attitude surveys, STAR Reading assessments, CBM for Oral Reading Fluency, and Accelerated Reader quizzes.

The researcher chose the kindergarten class participating in this study based on a previous relationship that the two classes had together. The kindergarten and third grade classes had already been working together since the beginning of the year in a junior partner program. This program involved the third grade students working with a kindergarten partner once weekly on various projects including art, reading, math, science and social skills. However, they had not worked in the third grade classroom prior to the intervention so that aspect was new to them. This relationship made using these two classes the natural choice for this study. Thus allowing the kindergarten students feel comfortable working not only with the third grade students, but with the facilitator as well. Though the students were paired with different partners in the junior partner program than in the reading intervention, they were familiar enough with the class as a whole to not be adversely affected by the change in partners.

Each session during intervention the third grade students were required to pick one book within their zone of proximal development (ZPD) to read out loud to their kindergarten partner. The students were asked to pick the book based on the interests of their partner and practice it
daily in preparation for the read aloud. Only after they had practiced daily, and read the book aloud during tutoring, were they able to take their Accelerated Reader quiz for that story. After spending the first 10-15 minutes of the tutoring session with the third grader reading aloud to their partner, the kindergarten students spent the next 15-20 minutes practicing reading a leveled Rigby Reader out loud to their third grade tutor. During this time, the tutors were to provide support to their partner (help sounding out words etc.) and ask questions of the tutee. After each tutoring session, the third grade students met with the teacher for direct instruction on questions to ask during tutoring and comprehension instruction using the Comprehensive Assessment for Reading Strategies (CARS) Program.

Participants

This study was designed as a randomized control trial study including a reading intervention for struggling third grade students. Before beginning, parent permission was obtained for all students participating in the study. In this intervention, the third grade students acted as reading tutors for kindergarten students who are also struggling with reading.

Students. Eighteen students in total participated in this study. Ten of those students were third graders and eight were kindergarten students. Before implementation of the study, third grade students were identified as being far below or below grade level and from there randomly assigned to either the treatment or control group. Kindergarten students were also identified based on need and randomly assigned to the treatment or control groups. Each of the third graders was considered to be below grade level in reading based on the STAR Reading assessment. Both the control and the treatment group were reading at an average level one year below grade level. The kindergarten students were chosen by their teacher as being in need of reading tutoring. Of the eighteen students, five kindergarten students and five third grade
students were randomly chosen to participate in the reading intervention program. The average age of the third graders chosen for the treatment group was 8.8 years. The average age of the kindergarten students in the treatment group was 5.2 years. The other three kindergarten and five third grade students acted as the control group in the study. The average age of the third graders in the control group was 8.6 years. The average age of the kindergarten students in the control group was 5.7 years. The researcher administered the STAR Reading assessment, the CBM-ORF, Accelerated Reader quizzes and the Reading Attitude surveys to the third grade students in the control group but they did not participate in the intervention program. By using a treatment group and a control group in this study the scores and responses on the given assessments will be compared to determine the effectiveness of cross-age tutoring in increasing student tutor achievement in reading comprehension, fluency, and attitude toward reading. The researcher will also measure the reading attitudes for kindergarten students.

**Teachers.** Two teachers participated in this study, one kindergarten teacher and one third grade teacher. The kindergarten teacher had very little involvement in the study other than identifying students in need of tutoring in reading. The third grade teacher was the classroom teacher and the researcher in this study. Both teachers are from the same school and have worked together in the previously in a junior partner program with their classes. Due to this previous relationship, the teachers and their students were used to working together making for an easy transition into working together on the reading intervention. Having the third grade teacher act as the researcher in this study provided a very unique perspective. Because the researcher works with the students on a daily basis, there is a better understanding of their actions, schedules, and needs.
Population

The students participating in this study are from one kindergarten and one third grade class in the same elementary school. The elementary school is a public school located in a district in Northern California. The participating school serves students from kindergarten to 6th grade. According to reports from the 2014-15 school year provided by the California Department of Education, the school serves 556 total students. Of the 556 students 1.5% of the students in the school identify as Hispanic or Latino, .7% as American Indian or Alaskan Native, 5.5% as Asian, 1.2% as Pacific Islander, 1.8% as Filipino, 1.4% as African American, 68% as White, and 6.6% as two or more races (California Department of Education, 2015). It should also be noted that the California Department of Education (2015) found that 47% of the students in the school are female and 53% are male. Finally, 35% of the students in the school are considered to be socioeconomically disadvantaged (California Department of Education, 2015).

Of the students participating in the study, there are ten third grade and eight kindergarten students. The third grade sample is comprised of students with various ethnicities and socioeconomic statuses. In fact, 30% of the third grade students identify as being ethnic with one student identifying as American Indian or Alaskan Native and two as Hispanic or Latino. The female to male ratio within the participants is equal, with five being male and five female. Two of the third graders, one in the control and one in the treatment group, have been identified as students with special needs. The students’ disability categories are specific learning disability for the student in the treatment group and other health impairment for the student in the control group. The kindergarten students also represent various ethnic and socioeconomic groups. Two of the kindergarten participants identify as ethnic. The male to female ratio among kindergarten students is also equal with four being male and four female.
Materials

Each of the comprehension and fluency measurements (STAR, Accelerated Reader, and CBM-ORF) used in this study has been adopted by the district in which the school resides as effective assessment tools. The assessments are used throughout the district and this, along with their validity and reliability are the main reasons why these assessments were chosen for this particular study. Also, it should be noted that the researcher only administered the STAR reading, Accelerated Reader quizzes, and CBM-ORF to the third grade students because the study aimed to determine the effectiveness of the intervention on the third grade tutors, not their kindergarten partners.

Reading Attitude Survey. Once permission for all students was obtained, the researcher administered all eighteen kindergarten and third grade students the Reading Attitude Survey, (see Appendix A and B). In administering this survey, the researcher not only read the questions to the students but marked the answers indicated by the students.

The Reading Attitudes Survey was designed based on the Likert Scale. The Likert Scale was first designed in 1932 and aims to directly measure attitudes. The Likert Scale requires participants to rate their agreement, or disagreement, of a provided statement. Likert scales typically have five to seven response options including a neutral response. The validity and reliability of the Likert Scale was studied by Geldhof et al. (2015) with 578 late adolescents. Geldhof et al. (2015) found the Likert-type Scale to not only be statistically valid and reliable, but that it is also considered to be more appropriate for younger adolescents than many other survey types.
**Standardized Test for the Assessment of Reading.** The researcher additionally administered the ten third grade students the STAR reading assessment, which is an online assessment. The researcher administered the STAR reading assessment to students via computer both before and after implementation of the intervention in order to assess reading comprehension. The STAR reading assessment is an online assessment program in which students read text passages and answer a variety of comprehension questions. According to Renaissance Learning (2014) the STAR assessment has been found by researchers to be reliable, valid, and efficient by various independent groups. The U.S. Department of Education: National Center on Student Progress Monitoring (2006) also found the STAR reading assessment to have convincing evidence of generalizability, validity, and reliability.

**Curriculum Based Measurement-Oral Reading Fluency.** The researcher administered the Curriculum Based Measurement for Oral Reading Fluency (CBM-ORF) to students both pre and post-intervention. In CBM-ORF the students is given a grade level appropriate reading passage and is asked to read it aloud for one minute. The person administering the assessment then marks any words read incorrectly, or words in which a student hesitates for more than three seconds. This data then allows the instructor to score the data and determine the correct words per minute (CWPM). According to Wright (2013) this assessment is ideal for progress monitoring as it is both sensitive to short term fluency gains and predictive of long term reading success. Valladolid (2015) also studied the effectiveness of the CBM-ORF. In her study, Valladolid (2015) found that CBM-ORF to exceed the acceptable reliability coefficient. The results also indicated moderate validity correlations for the CBM-ORF (Valladolid, 2015). For these reasons, the CBM-ORF was chosen to be administered as a fluency assessment for students participating in this study.
**Accelerated Reader Quizzes.** An additional reading comprehension assessment, the students took an Accelerated Reader reading quiz after each tutoring session to provide progress monitoring data on reading comprehension achievement and growth. The Accelerated Reader program is an online program which can be paired with the STAR reading assessment to give students appropriate reading goals, based on their Instructional Reading Level and ZPD, and progress monitoring of these goals. The students have the option of testing on books of their choice on the Accelerated Reader site. For each test they take, depending on the level of the book and the percent correct on the quiz, the students earn points towards their pre-determined goals. The Accelerated Reader program also provides intervention strategies, progress monitoring, and diagnostic information on student achievement for parents and educators.

The Accelerated Reader program was chosen for three primary reasons. The first reason being that the program has been adopted for use by the district. The second reason the Accelerated Reader tests were used was because of its proven effectiveness. The Accelerated Reader program has been shown by Clark (2014), to have statistically significant positive effects on the reading attitudes of students participating in the program. Myers (2012) also found there to be a significant correlation between the implementation of the Accelerated Reader program and students’ standardized reading test scores. Finally, the Accelerated Reader program was used because of the progress monitoring aspects it provided. Through use of the Accelerated Reader program the instructor was able to directly monitor any effects that the intervention program may be having on students’ reading achievement. By comparing the control and treatment groups’ scores on Accelerated Reader quizzes taken prior to and during the intervention the researcher was able to analyze the data for possible effects.
**Rigby Readers.** This study does not focus on the use of the Rigby Readers, nor is it necessary to use the system in implementing this intervention. Rigby Readers were used in this particular study as they were an available source of texts that the kindergarten students would be able to read independently. Most of the other books that could be found in the library at this school are at a level too high for independent reading by kindergarten students. The Rigby Reader series has a variety of fiction and nonfiction texts in various reading levels. The readers are also stories that are already used for student reading in the class of the kindergarten students so they were already familiar to the students. During the intervention the students read from texts between level one and level three depending on their needs and progress.

According to Brahbam and Vilaume (2002), effective reading instruction takes place only when struggling readers have opportunities to be successful with reading a text rather than experiencing constant frustration. They also state that readers must be motivated with texts that offer enough challenge to encourage growth (Brahbam & Vilaume, 2002). Using Rigby Readers, a leveled text series allows the instructor to ensure that each child is challenged, yet not to the point where they become overly frustrated, which optimizes growth.

**Comprehensive Assessment of Reading Strategies Program.** The CARS program is comprised of a variety of instructional work packets which focused on specific strategies for improving comprehension. These strategies were main idea, recalling facts and details, and understanding sequence among others. The instructional work packets guide students through understanding each strategy using examples and real-world connections and practice using the strategies in their reading. Due to the limited time available for this study, only the first three strategies listed were implemented with the students.
The effectiveness of the CARS strategy and its use is not being investigated in this study. In this particular study, the CARS program was chosen for two reasons. First, the CARS program was chosen due to being chosen by the grade level teachers as an appropriate instructional program for improving reading comprehension and was used by the other grade level teachers in their classroom as well. Second, the CARS program has been determined to be effective in improving reading comprehension for struggling readers. In 2011, Curriculum Associates completed a study of the instructional effectiveness of the CARS strategy. They studied the effectiveness of the program by means of 192 grade three students. The assessments used in this study were the Stanford Achievement Test Series, 10th edition (SAT-10) and the CARS pre and posttests. This study found that the students in the treatment group showed higher SAT-10 posttest scores that were considered to be statistically significant, it was found to be a medium effect size (Curriculum and Associates, 2011). Curriculum and Associates (2011) also found that more students had at or above grade level score at conclusion of the intervention than during the pretest. The information described above is another reason for which the CARS strategy was chosen to be implemented with the students participating in this study.

**Questions to Ask During Reading.** The “Questions to Ask During Reading” document, found in Appendix D, is a document which the third grade students used to help them ask reading questions of their tutee throughout the tutoring session. The document lists ten questions geared towards reading comprehension and concepts about print. Concepts about print are the information kindergarten students are expected to be able to identify regarding the layout of books and how to read.
Questions for my Reading Partner. The third grade students used the document titled “Questions for my Reading Partner”, Appendix C, to help them understand the reading interests of their partner and to help them get acquainted with each other before the intervention began. The third grade students asked their tutee each of the questions listed on the document and recorded their answers as they described them. The third grade students then used this information to help them choose read aloud books that would interest their partner.

Procedures

Before the start of the reading intervention, the researcher administered each third grade student the STAR Reading assessment via computer, the CBM-ORF, and a reading attitude survey. Prior to the start of the intervention program the third grade students met with the teacher to review expectations and discuss the layout of the session. In the reading intervention, the third grade tutors met with their kindergarten partners for a total of eight sessions. During the eight session intervention, the third grade students also met once weekly with the teacher for a check-in and direct instruction in tutor practices and comprehension skills. The first intervention session differed slightly from the other seven as the students completed the Questions for my Reading Partner survey. After each session of the intervention the students were also required to take an Accelerated Reader quiz on the book that they chose to read to their partner for that week. After the end of the intervention program the researcher once again administered all of the students the STAR Reading assessment, CBM-ORF, and the Reading Attitudes Survey. The following describes in detail the implementation of the reading intervention program.

Partner Session Schedule. Each of the sessions between the third grader and their kindergarten partner, besides session one, followed a very specific schedule. The first 10-15 of the intervention session began with the third grader reading aloud to their partner using the book
they had chosen for their partner and practiced daily prior to the session. The remaining 15-20 minutes involved the kindergarten partner reading from either a level one or level three Rigby Reader, depending on their needs, with the third grader not only helping assist the reader as necessary but also asking a variety of text feature and comprehension questions that they had been directly instructed in by the teacher. After each tutoring session, the third grade students took an Accelerated Reader quiz on their selected read aloud book.

**Reading Partner Session One.** During the first session of the intervention the kindergarten and third grade reading partners met each other for the first time. They first introduced themselves and found a place within the room to work. The third graders were given a Reading Interest Survey, which can be seen in Appendix C and is titled “Questions for my Reading Partner”. The third grader asked their partner each question of the survey and noted their answers. After completing the survey, the third graders were prepared with a level one Rigby Reader and the kindergarten student worked through reading that story aloud. The third graders provided assistance as needed. During the first session, the third graders were not given specific instruction on what to ask their reading partners. The first session was intended to help the partners familiarize themselves with the intervention, the setting and with each other.

The third graders took this survey with them each time they selected a book within to read to their partner during each subsequent lesson in order to remember their interests. The students were required to choose a book that was within their predetermined ZPD level. The ZPD was predetermined by their scores on the STAR assessment that the students were given before implementation. ZPD is considered “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable
peers” (Vygotsky, 1978, p. 86). According to Shabani (2010), one important implication of this is that what students can perform with assistance today, they will be able to perform independently tomorrow. For these reasons, the third graders were asked to choose a book within their own ZPD, practice it daily with assistance as needed, then read the story independently to their tutee during the intervention session.

**Teacher-Led Sessions.** Following the reading partner sessions, the third grade tutors also participated in half hour sessions with the instructor. During each session of this intervention, the facilitator began by checking in with the third graders regarding their thoughts, questions and progress. This gave the third graders an opportunity to reflect on the tutoring session and ask any questions they may have. It also gave them an opportunity to discuss together, any issues they may be having and receive advice from their peers and instructor.

During the first two sessions the instructor gave each student a copy of the document titled “Questions for my Reading Partner”, which can be seen in Appendix D. The group first read through each question together to familiarize them with the information. After this, the instructor used the direct instruction method to instruct students in how to implement these questions during their tutoring sessions. The direct instruction strategy starts with the teacher modeling for the students what it would look like to ask the questions during a tutoring session. Once the teacher modeling had been completed, the teacher and the students together practiced how the questions could be asked. The teacher would ask the students to determine what questions would be appropriate at what time. The teacher read an example text aloud and had the students raise their hands when they thought it would be appropriate to ask a certain question. The teacher provided feedback as the students made suggestions. Finally, the students were broken into pairs and practiced using the questions while their partner read to them. During the
independent practice the teacher monitored student progress and provided feedback as necessary. This direct instruction happened for two consecutive sessions before the instructor felt that the students were ready to move on.

During the remainder of the teacher directed sessions the CARS reading comprehension program was used as instruction for the third grade students. In this program, the students were first given background information about what the given strategy was. Next, the students were instructed in using the strategy with a book or TV show they had recently read/watched using specific leading questions to get them to understand the strategy. Finally, the students were given a few short texts in which the instructor led them in using the strategy followed by information describing what they had just done.

At the conclusion of the study the researcher administered all eighteen students the Reading Attitudes Survey following the same protocol used during the first administration. The researcher also administered the ten third grade students the STAR Reading assessment as well as the CBM-ORF. The researcher compared the survey and assessment scores for the control and treatment groups to determine effects of the intervention described above.

Field Notes

Throughout the intervention the teacher noted anything that the students talked about regarding the intervention. During each teacher-led session, notes were kept regarding what the students talked about during debrief and what questions, successes or concerns they had. The teacher also kept notes of anything the kindergarten students said during the intervention sessions. These notes also included times that the students mentioned successes or difficulties with their weekly Accelerated Reader quizzes and things they mentioned when picking out books and practicing their read aloud stories. These notes included exactly what the students said
and were used as ethnographic data for the study. The researcher used the field notes to triangulate the surveys and quantitative data.

**Data Analysis Procedures**

The researcher collected the data for this study using both qualitative and quantitative methods. The researcher analyzed the quantitative data using descriptive and inferential statistics. Specifically, the researcher described the data in terms of the measures of central tendency and measures of variability. The researcher determined the statistical significance for the results of the assessments using a t-test for analysis. The researcher recorded and compared the data using Excel. Finally, the researcher measured the qualitative data using phenomenological data analysis.

The researcher analyzed the quantitative data collected using the same set of statistical practices, though each assessment measures a different set of data. The CBM-ORF reported the data in the form of correct words per minute, Accelerated Reader quizzes measure the percent of questions answered correctly on a given quiz, and the STAR assessment reports the instructional reading level of each student. From this data, the researcher calculated the mean and standard deviation. These measures allow the researcher to determine the average score of the students participating and the average amount that the set of scores differ from the mean. A t-test determined the statistical significance of the reported scores for each assessment. This form of analysis allows a researcher to compare two sets of data, for example control and treatment groups, using the mean and standard deviation for that data to determine whether the resulting probability is less than .05 thus showing statistical significance.
The researcher administered a reading survey pre and post-implementation to collect quantitative data regarding the reading attitudes of students. A t-test also reviewed this data. The t-test allowed the researcher to compare the pre and post-implementation scores on the given survey for students in the control and treatment group. The researcher used comparisons of these scores to determine any statistically significant differences.

The researcher collected qualitative data during this study using one question on the third grade reading attitudes survey and ethnographic field notes. The researcher used phenomenological data analysis to analyze this qualitative data. This analysis involves categorizing the data into meaningful sections, integrating and making sense of the sections, and describing the meaning that is discovered in the process. The analysis determined themes which allow the researcher to further understand the effects of the tutoring on students.
CHAPTER IV

Results and Discussion

Presentation of the Findings

The researcher collected the data in this study using three quantitative assessments. These assessments included the STAR Reading assessment, AR quizzes, CBM-ORF, and the Reading Attitude Survey. The researcher also examined two sets of qualitative data using phenomenological data analysis. These sets of data included information gained from one open-ended question on the Reading Attitudes Survey and from the ethnographic notes taken by the researcher throughout the implementation of the program. The researcher will present the findings in the order that they have been described above.

**Star Reading Results.** The first assessment that will be discussed is the STAR Reading Assessment. The researcher administered this assessment to students via computer before implementation of the program and after implementation was completed. In the STAR Reading assessment the students are asked to choose the correct word to complete a given sentence or paragraph. The assessment is multiple-choice and students are given a limited amount of time on each question. The STAR Reading assessment produces results in the form of the Instructional Reading Level (IRL) for each student. The IRL describes the level at which a student is at least 80% proficient at reading and comprehending the material. IRL is reported in terms of the grade level with which the student is performing. For example, an IRL of 3.5 would indicate that a student would be best served with material at the third grade level. The researcher entered the data collected from this assessment into Excel in order to analyze the results. For the treatment and control groups the researcher compared the pre- and posttest scores to determine growth for
each student. The researcher determined the mean and standard deviation for growth for both the treatment and control groups. The researcher found the average growth of the control group to be 0.32 with a standard deviation of .92. The treatment group had an average growth of 0.26 with a standard deviation of 0.69. Also, when comparing the students with special needs, the student in the treatment group both showed no growth in their scores between the pre and post-assessments. The data regarding average growth for the treatment and control groups is compared in Figure 1 below.

Figure 1

STAR Test Average Growth
Accelerated Reader Quiz Results. The next assessment that the researcher administered to the students before and after implementation of the reading program was Accelerated Reader quizzes. Accelerated reader quizzes can be taken by students after they have read a book. The student enters the book name into the Accelerated Reader program and takes the quiz for that book. The quiz has different numbers of questions based on the size of the book and students can earn points towards pre-determined goals depending on the number of correct answers they have on each quiz. I analyzed the data for Accelerated Reader quizzes in a variety of ways. First, the researcher determined the average percent correct on each quiz over an eight week period before the implementation of the program. The researcher also determined the average percent correct on each quiz for the time in which the program was running. The researcher entered this data into Excel for the control and treatment groups separately. On these quizzes, the student with special needs in the control group showed a growth score of -19.3 between the pre-intervention average and the during intervention average. The student with special needs in the treatment group showed a growth score of -12.8. The negative value indicates that both students had a lower during intervention quiz average than their pre-intervention average. The researcher compared the pre- and posttest data to determine the growth of each student as well as the average growth for the control and treatment groups. The researcher also determined the standard deviation for these scores. The researcher compared these results using a t-test to determine the statistical significance. This t-test can be found in Table 1 below.
Table 1

Accelerated Reader T-Test

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>-11.16</td>
<td>6.42</td>
</tr>
<tr>
<td>Variance</td>
<td>415.443</td>
<td>1707.922</td>
</tr>
<tr>
<td>Observations</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>df</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>t Stat</td>
<td>-0.8530835</td>
<td></td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.42635099</td>
<td></td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2.44691185</td>
<td></td>
</tr>
</tbody>
</table>

The researcher also analyzed the Accelerated Reader quiz data using the number of books that each student tested on for the before and during implementation results. Again the researcher compared the control and treatment group growth using the mean and standard deviation for each group. For the control group, the mean average growth was .04 with a standard deviation of 3.97. The treatment group had a mean of 19.4 with a standard deviation of 16.4. The student with special needs in the treatment group showed growth of 11 more books tested while the student in the control group showed growth of only 1 more books tested. The researcher compared the average growth in the number of books tested for the control and treatment groups in Figure 2 below.
Finally, the researcher collected the Accelerated Reader quiz data for only the treatment group after each intervention session. Following each intervention session, the treatment group students were required to take an Accelerated Reader quiz on the book which they practiced prior to the session then read aloud to their tutee. Though there were eight sessions during the intervention, the first session did not involve the tutors reading aloud to the tutee so no quiz was taken after that session. The student with special needs in the treatment group showed a mean percentage correct of 72% on the post-session quizzes which was higher than both his pre-intervention average and during intervention average. The researcher determined the mean and
standard deviation of this set of data for the control and treatment groups. Below, the results of this data can be found in Table 2.

Table 2

AR Quiz Results for Treatment Group during Intervention

<table>
<thead>
<tr>
<th>AR Quiz Score</th>
<th>Intervention Sessions</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>100</td>
<td>66.7</td>
<td>60</td>
<td>100</td>
<td>100</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Student 2</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Student 3</td>
<td>80</td>
<td>100</td>
<td>100</td>
<td>60</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<tr>
<td>Student 4</td>
<td>100</td>
<td>100</td>
<td>40</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Student 5</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>91.0486</td>
<td>19.3303</td>
</tr>
</tbody>
</table>

CBM-ORF Results. The next assessment for which the researcher analyzed results was the CMB-ORF. In this assessment the student is asked to read a grade level passage out loud. During the reading the assessment administrator marks the words read incorrectly or words that could not be read by the student. The administrator also marks the place in the text that the student has read to at the end of one minute. From there the words missed are subtracted from the total words read giving the student overall correct words per minute for that passage. This process is completed for two different passages and the correct words per minute are averaged.
for the two. The researcher recorded the results of this assessment for the control and treatment groups. From this data the researcher determined the pre- and posttest growth for each student and the researcher derived the mean and standard deviation from this data. On the CBM-ORF, the researcher found that the student with special needs in the control group showed a growth score of -9 while the student with special needs in the treatment group showed a growth score of 35. The control group had a mean growth of 11.2 words per minute with a standard deviation of 14.9. The treatment group results indicated a mean of 47.8 with a standard deviation of 30.3. A t-test determined the statistical significance of the growth for the treatment and control groups. From the t-test it was found that the t statistic was -2.42 with a two tailed probability of 0.05. Growth is described in terms of correct words read per minute (CWPM). Figure 3 below compares the growth for each student in the control group with the growth of each student in the treatment group.
**Reading Attitude Results.** The researcher determine the reading attitudes of the third graders and kindergarten students using a Likert-style survey in which students rated their agreement or disagreement to questions about reading. The researcher documented the results in Excel and the researcher determined pre-to posttest growth for each question of the survey. The researcher derived the mean and standard deviation for the total growth. The third growth mean growth for the control group was -0.04 with a standard deviation of 0.84. The researcher found the treatment group mean growth to be -0.13 with a standard deviation of 0.69. The researcher then described the data using a t-test to determine the statistical significance. From the t-test it was determined that the t statistic was 0.25 with a two tail probability of 0.81. The mean growth
for the kindergarten students was 0.62 for the control group and 0.10 for the treatment group.

The standard deviation for the control group was 0.68 and 0.70 for the treatment group.

According to the t-test conducted using the data the t statistic was determined to be 1.07 with a two-tailed probability of 0.31. The student answers for the kindergarten and third grade students both pre-intervention and post-intervention can be seen in Tables 3 and 4 below.

Table 3
Third Grade Attitude Survey Results

<table>
<thead>
<tr>
<th></th>
<th>Reading Attitude Survey (3rd)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Control</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Q1</td>
<td>1 4 5 4 5</td>
<td>5 4 5 5 5</td>
</tr>
<tr>
<td>Q2</td>
<td>4 3 5 3 5</td>
<td>4 3 5 4 5</td>
</tr>
<tr>
<td>Q3</td>
<td>3 5 5 1 4</td>
<td>2 2 2 1 4</td>
</tr>
<tr>
<td>Q4</td>
<td>1 4 3 3 5</td>
<td>5 3 4 4 5</td>
</tr>
<tr>
<td>Q5</td>
<td>5 5 5 5 5</td>
<td>4 2 4 5 5</td>
</tr>
<tr>
<td>Q6</td>
<td>4 5 5 5 4</td>
<td>5 5 5 5 5</td>
</tr>
<tr>
<td>Q7</td>
<td>5 4 5 5 5</td>
<td>4 4 5 5 5</td>
</tr>
<tr>
<td>Q8</td>
<td>5 5 5 5 5</td>
<td>4 3 5 5 5</td>
</tr>
<tr>
<td>Q9</td>
<td>4 4 5 5 5</td>
<td>4 5 5 5 5</td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>5 5 5 3 2</td>
<td>5 5 5 3 4</td>
</tr>
<tr>
<td>Q2</td>
<td>5 5 5 3 4</td>
<td>5 4 4 3 4</td>
</tr>
<tr>
<td>Q3</td>
<td>5 3 1 5 5</td>
<td>1 2 1 2 5</td>
</tr>
<tr>
<td>Q4</td>
<td>1 3 2 2 2</td>
<td>2 3 3 2 5</td>
</tr>
<tr>
<td>Q5</td>
<td>5 3 1 5 5</td>
<td>4 3 3 3 5</td>
</tr>
<tr>
<td>Q6</td>
<td>5 3 5 5 4</td>
<td>5 3 5 4 4</td>
</tr>
<tr>
<td>Q7</td>
<td>5 4 5 5 5</td>
<td>5 4 5 5 5</td>
</tr>
<tr>
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<td>5 3 5 5 5</td>
</tr>
<tr>
<td>Q9</td>
<td>4 2 5 5 5</td>
<td>4 3 4 3 5</td>
</tr>
</tbody>
</table>
Table 4

Kindergarten Attitude Survey Results

|       | Pre | | | | | | Post | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Control | 1   | 2   | 3   | 1   | 2   | 3   | 1   | 2   | 3   | 1   | 2   | 3   | 1   |
| Q1     | 4   | 4   | 5   | 4   | 4   | 5   | 4   | 4   | 5   | 4   | 4   | 5   | 4   |
| Q2     | 5   | 4   | 4   | 4   | 5   | 5   | 5   | 4   | 5   | 5   | 4   | 5   | 5   |
| Q3     | 5   | 1   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   |
| Q4     | 2   | 1   | 5   | 5   | 2   | 5   | 5   | 2   | 5   | 5   | 2   | 5   | 5   |
| Q5     | 3   | 5   | 5   | 4   | 4   | 5   | 5   | 4   | 4   | 5   | 4   | 4   | 5   |
| Q6     | 4   | 5   | 4   | 4   | 5   | 5   | 4   | 4   | 5   | 4   | 4   | 5   | 5   |
| Q7     | 3   | 4   | 4   | 4   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   | 5   |
| Treatment | | | | | | | | | | | | | |
| Q1     | 5   | 4   | 5   | 3   | 5   | 5   | 4   | 5   | 4   | 5   | 4   | 5   | 5   |
| Q2     | 2   | 5   | 5   | 2   | 4   | 2   | 4   | 5   | 2   | 5   | 2   | 5   | 2   |
| Q3     | 2   | 5   | 2   | 1   | 2   | 4   | 4   | 1   | 4   | 4   | 4   | 4   | 4   |
| Q4     | 5   | 4   | 4   | 1   | 4   | 2   | 5   | 5   | 1   | 2   | 2   | 2   | 2   |
| Q5     | 5   | 4   | 3   | 1   | 3   | 5   | 4   | 4   | 1   | 5   | 5   | 4   | 4   |
| Q6     | 4   | 4   | 4   | 5   | 4   | 5   | 5   | 5   | 1   | 5   | 5   | 5   | 5   |
| Q7     | 4   | 5   | 4   | 3   | 5   | 5   | 1   | 5   | 1   | 5   | 5   | 1   | 5   |

The researcher also measured the reading attitudes of the students were using phenomenological data analysis of a question on the 3rd grade reading survey and field notes that the researcher collected throughout the intervention. The researcher analyzed the question on the reading survey which asked students to describe what makes a good reader. The control and treatment groups were asked this question pre and post-intervention and their responses were recorded exactly as they gave them. These responses were then placed into groups with responses that were found to be similar. From there these groups were given a theme based on the responses given.
For the control group, the researcher categorized the responses pre-intervention into three themes. In order to categorize the responses the researcher started by writing down student responses on a sticky note. The researcher wrote each idea that the student indicated on a separate note. After the researcher had noted every response for the control the researcher matched the responses that were similar together and formed groups. Finally once all of the groups were created the researcher labeled the groups based on the type of responses included in the group. These labels became the categories, or themes, for the responses. These themes included practice, the use of the Accelerated Reader program, and actions readers take while reading. The theme of practicing included responses such as reading every day, reading 25 minutes a night, and reading when supposed to. The theme of using the Accelerated Reader program included meeting reading goals and testing on books. Finally, the theme of actions readers take while reading included responses such as reading to themselves, not asking others what happened in the book, and not skipping anything in the book. After the intervention ended, the control group responses were grouped very similarly with only one of the above mentioned themes changing. The theme of use of Accelerated Reader was replaced with testing on books within their reading levels.

For the treatment group, pre-intervention responses could be grouped into five different themes. The researcher grouped the responses into themes following the same steps as were used with the control group. These themes included actions readers take while reading, practice, testing, correctness, and reading big books. The theme of testing included responses such as taking tests and quizzes. The theme of correctness included not getting mixed up and reading the words correctly. After the intervention ended however, the responses of the treatment group narrowed to only three themes. These themes included helping others and reading to others,
practicing, and fluency. The theme of helping others and reading to others included responses such as helping kids read, reading to others, and reading out loud. The theme of fluency included answers such as not losing your spot, not taking any mistakes, and reading fluently.

Finally, the researcher analyzed the reading attitudes of students through the field notes of the researcher throughout the intervention. In this case, the researcher had a unique perspective on the students as she was also the classroom teacher in this case. This gave the researcher the ability to have more interactions with the students from which to keep notes on and also a stronger understanding of the students themselves. The researcher noted any time the students talked about the intervention and what exactly they said or did. For the third grade students, the field notes could be categorized into three different themes. These themes included compliments about their partner, issues with partners, and excitement for reading/tutoring. The theme of compliments included times that the third graders mentioned the progress of their tutees. They said things like “my partner read louder this week”, “my partner used the pictures to help her understand the story”, and “my partner did really well this week”. The theme of issues included times that the students talked about problems they may have been having with their partners. These problems included the tutors not liking when their tutee did not pay attention and their tutee not answering the questions they were asking. The theme of excitement for reading/tutoring included things such as students running to class to make it on time for the tutoring session, working together to find books that they think their partners will like, and running up to the teacher to exclaim “I got 100% on my book!” For the kindergarten students, it was found that their responses changed slightly over time. At the start of the intervention, two themes were noticed. These themes were reluctance to participate and excitement over accomplishments. For the reluctance theme the notes included students not talking to their
partners or reading so quietly that they could not be heard and saying things such as “Why do I have to do this?” The accomplishments theme included the kindergarten students running up to the researcher and saying “I read a whole page by myself!” However, over time the accomplishments theme changed from students being excited about reading a page or a word to students being excited over reading an entire book on their own. Also, the reluctance theme was replaced by a theme of general excitement to participate in the tutoring sessions. The same students who at first asked why she had to participate was then asking “Do I get to come tomorrow too?”

Discussion of the Findings

Through this study, the researcher answered four research questions. How does cross-age tutoring affect reading comprehension for the student tutors? How does cross-age tutoring affect reading fluency for the student tutors? How does cross-age tutoring affect the reading comprehension and fluency for student tutors who have special needs? How does cross-age tutoring affect reading attitudes for the tutor and tutee?

Research Question One. The first research question that has been answered by the data is how cross-age tutoring affects the reading comprehension of the student tutors. The researcher analyzed the data for comprehension through two different comprehension assessments. The two assessments that were analyzed were the STAR Reading assessment and the Accelerated Reader quizzes. The STAR Reading assessment showed that the reading comprehension scores of the control group ended up being slightly higher than that of the treatment group. The Accelerated Reader quizzes on the other hand did show positive growth for the treatment group in comparison to the control group. Overall, the treatment group showed more growth than the control group between their pre-intervention and during intervention scores. The treatment group
also tested on more books than the control group with students in the treatment group more than doubling their average number of books tested. There were also positive effects shown in the average quiz percentage during the intervention for the treatment group. The treatment group had an average score of 91% during the intervention with one student even growing from a 20% quiz average before the intervention to a 100% average during intervention. However, though positive growth was shown for students in the treatment group in comparison to the control group, neither the number of books tested nor the growth between pre-intervention quizzes and during intervention quizzes showed statistically significant scores as determined by a t-test. It should be noted that the mean percent correct on quizzes for the treatment group could have been affected by the increase in the number of quizzes they took. Also, the treatment group scored less well than the control group on both the pre- and posttest for the STAR Reading assessment. This data indicates that the effect of cross-age tutoring on reading comprehension for the student tutors is not found to be significant.

**Research Question Two.** The second research question aimed to determine the effects of cross-age tutoring on the reading fluency of the student tutors. The researcher collected the data for this research question using the CBM-ORF and through the number of books read in the Accelerated Reader program. The results of this assessment indicated positive growth for the treatment group. In fact, according to the post-intervention assessment three of the five treatment group students scored above grade level. The treatment group also showed higher mean growth than the control group on the pre and post-intervention assessment. Also, in terms of the number of books read the treatment group showed much higher growth between the pre-intervention number and the during intervention number. This higher positive growth in the number of books read indicates positive effects on fluency for the treatment group. Nevertheless, the t-test results
did not show significant differences in growth between the control and treatment group. Therefore, the effects of cross-age tutoring on reading fluency for the student tutors were not found to be significant.

**Research Question Three.** Next, the researcher considered the reading comprehension and fluency for student tutors with special needs. The results indicated that both the student in the control group and the treatment group showed no growth in their STAR Reading scores. On the Weekly Accelerate Reader quizzes both students showed a decline in their average percent correct. However, the student in the treatment group showed less of a decrease in percentage than the students in the control group. The student in the treatment group also showed ten times the growth in the number of books tested than the student in the control group. Based on this data, it has been shown that there were some positive effects on the reading comprehension and fluency of student tutors with special needs.

**Research Question Four.** Finally, the last research question to be answered was the effect of cross-age tutoring on the reading attitudes of the student tutors and tutees. The researcher collected this data by the Reading Attitudes Survey, with one survey for the kindergarten students and one for the 3rd grade students, and through the number of books read by the third graders as indicated by the Accelerated Reader program. The results of the number of books read showed that the treatment group had greater growth in the number of books read than did the control group. This positive growth indicates positive effects on attitude for the third graders in the treatment group. The researcher analyzed the results of the survey to determine the effects. For the 3rd grade and kindergarten students, it was found by a t-test that there were no significant effects on the reading attitudes of the cross-age tutors when compared with the control group.
As for the qualitative results found for the reading attitudes of students through phenomenological data analysis it was found that both the kindergarten and third grade students showed positive effects of cross-age tutoring. On the question for the third graders about what makes a good reader, the control group had very little change in their answers between the pre and post-implementation responses. The treatment group on the other hand not only narrowed their answers but also included responses regarding fluency, reading out loud and using their skills to help others. The field notes collected found that the third graders were generally more excited about reading than they were in the past. They worked together to pick books they thought their partners would like, they practiced the stories throughout the day and would often argue over who got to go get the tutees and bring them to the classroom. Overall, after implementation of cross-age tutoring the third grade tutors acted more confidently about reading and were more excited about reading than they had been before implementation. For the kindergarten students it was found that while they were reluctant about the reading tutoring at first, by the end of the tutoring intervention they were excited about the progress they were making, wanted to come to tutoring more often and were more comfortable reading with their partners than they had been before.
CHAPTER V

Conclusions and Recommendations

Conclusions

The aim of this study was to determine the effectiveness of cross-age tutoring in improving the reading comprehension, fluency and attitudes of the student tutors, as well as, the attitudes of their tutees. Four research questions were answered through the results of this study. The research questions included: how does cross-age tutoring affect reading comprehension for the student tutors? How does cross-age tutoring affect reading fluency for the student tutors? How does cross-age tutoring affect the reading comprehension and fluency for student tutors who have special needs? How does cross-age tutoring affect reading attitudes for the tutor and tutee?

These research questions have been identified through the previous research as being significant questions to answer. Previous research indicated that the third grade year is very important for student success (Lesnick et al., 2010). It has also been determined that cross-age tutoring can be very effective in improving reading comprehension, fluency attitudes of tutees (Galezio et al., 1994; Wright & Cleary, 2006; Jacobsen et al., 2001). Though the research indicates the positive effects of cross-age tutoring for tutees, there is very little evidence of its effects on the student tutors. For this reason, this study aimed to determine such effects. Once this has been determined, educators will be able to decide whether cross-age tutoring is an appropriate intervention to use in helping struggling students increase their reading achievement. This research will help educators make pedagogical decisions for reading instruction based on evidence.
This study involved 18 participants with eight coming from a kindergarten classroom and ten coming from a third grade classroom. Each of the eighteen students was found to be struggling with reading. Of these eighteen participants, five third grade students were randomly chosen to tutor five of the kindergarten students. The other five third grade students and three kindergarten students were used as a control group with which to compare results. Before implementation of the intervention, the researcher administered all of the students a Reading Attitudes Survey. The researcher also gave the third grade students the STAR Reading assessment and the CBM-ORF. The researcher collected data for student scores on Accelerated Reader quizzes for eight weeks prior to implementation of the intervention. During the intervention, the third grade students met with their kindergarten partners for eight sessions. During these sessions they read aloud to their kindergarten partner and then tutored their tutee as they read aloud. After each session, the third grade students took an Accelerated Reader quiz on the story that they had read aloud to their tutees. Also, after each session the third grade students met with the teacher to debrief the session and to get direct instruction in tutoring practices and reading comprehension skills. At the end of the intervention program, the students were once again administered each of the assessments and the reading survey. The researcher analyzed the results of these assessments using Excel and qualitative data were analyzed using phenomenological data analysis.

The quantitative results of this study found that there were no statistically significant effects of cross-age tutoring on the reading comprehension, fluency or attitudes of the third grade tutors. Though some positive effects were found, the t-test indicated no significant effects. In terms of students tutors with special needs, there were some positive effects seen in the treatment student in comparison with the control student. The most notable change being seen in the
number of books on which the treatment student tested and the CBM-ORF score growth for the treatment group. The student in the treatment group was found to show ten times the growth of the control group student on the number of books tested. Though some positive effects were seen, it is important to note that statistical significance of these results could not be determined and therefore it cannot be definitively stated that significant positive effects were shown. The positive growth in terms of the number of books read and CMB-ORF scores can be attributed to the practice and self-confidence that the student tutors gained during the intervention. Having to read a book multiple times before testing on it in AR caused many students to do better on their quiz scores which in turn caused them to want to read more books and test on them. Also, the daily practice with their read aloud books and the weekly practice in helping their tutee practice reading their stories could have led to the increase in CBM-ORF scores. The quantitative measures that did not show differences may have been caused by the small sample size and time constraints of this study. The small sample size caused there to be less data to be analyzed making it more difficult to produce statistically significant results. The time constraints made it so there was less time for the effects of the intervention to reach the students. If students were given more time to participate in the intervention greater positive growth may have been found.

The qualitative data showed the positive effects of cross-age tutoring on the reading attitudes of the kindergarten and third grade students. It was indicated that students were more excited about reading and felt more confident in their reading by the end of the intervention. It was also found that the third grade students in the treatment group had a more defined understanding of what it meant to be a good reader at the end of the intervention than they did before intervention. The control group did not show similar changes in their views about reading. The changes found in the treatment group may be attributed to having a reason to read other than
that their teacher asked them to. The students in the treatment group had a reason to be practicing their reading and felt as though the practice was important for something. Also, the third grade students were excited about working with the younger students and saw themselves as role models for their tutees. This may have caused them to have more positive attitudes regarding reading.

Overall, though there was some data which showed positive effects the t-test data indicated no significant effects. Therefore, due to the mixed results indicated above, it must be stated that in response to the research questions no significant effects could be found for cross-age tutoring. There are some limitations of this study that should be noted. First, the small sample size may have limited the study. A small sample size provides less data to be analyzed in order to produce conclusions. With a small sample size it becomes increasingly difficult to produce a statistically significant probability on a t-test. Secondly, the short duration of the study could have led to less significant results being reported. With a shorter duration there is less time for any possible effects to take place. This is especially noticeable in aspects of reading such as comprehension skills which take time to develop. If given a longer duration to participate in the study the effects may have been more exaggerated and thus more significant. Also, though the fact that the researcher was also the classroom teacher gave a unique perspective in the effects of the study, it could have also caused some bias. As the teacher, the researcher had reasons to want for student success and positive growth more so than a typical researcher might. For example, the teacher is under pressure by the school district to improve the reading scores of struggling students. This pressure could cause the teacher to want to find greater positive effects in the study than a researcher who would have no personal stake in the results of the study. The researcher worked to overcome this bias in three main ways. First, the researcher made sure to
encourage the students in the control and treatment groups equally. Second, the researcher used both qualitative and quantitative data in order to be able to triangulate my findings. Lastly, when collecting the qualitative data the researcher wrote my field notes and the students’ responses exactly as they happened, including none of the researcher’s personal thoughts on what she saw.

Recommendations

**Recommendations for Research.** In terms of recommendations for future research, this study should be done with a larger sample over a longer period of time in order to be better able to analyze the effects. Having a larger sample size would provide the researcher with more results to use and compare. Also, having the intervention go for a longer period of time would give the students more time fully immerse themselves in the intervention program and would give more opportunity for possible effects to develop. Finally, having a longer duration would provide the researcher with more qualitative data to analyze as well as more Accelerated Reader quiz results.

It may also be beneficial for this study to be completed by a researcher who is not also the classroom teacher. The researcher in this study was able to provide information and insights on students that a researcher who is not the teacher might not have been able to. These insights included things how the students behaved outside of the intervention such as during library visits. However, the researcher in this study could have had some bias due to the added motivation for student success. Having a researcher who is not the teacher complete a study on the effects would provide evidence free of any possible bias in terms of student effects and success. Overall, I think it would be very beneficial for a researcher who is not also the classroom teacher to reproduce this study with a larger sample size and longer duration in order to produce more definitive results.
**Recommendations for Educators.** As educators, it is important to make evidence-based pedagogical decisions (McCracken, 2014). Based on the evidence in this research, teachers should not use cross-age tutoring as an evidence-based approach in improving reading comprehension and fluency of student tutors. However, positive effects were seen for student tutors in terms of fluency and attitude growth. Due to the fact that there were no statistically significant effects found in the results of this study, it is important that educators seek further research before deciding to implement this in the classroom. Also, it is important that if a teacher does choose to implement cross-age tutoring with their students that they monitor the progress of their students carefully. This would ensure that any possible effects will be noticed by the teacher and he/she can adjust instruction as necessary based on these effects. It should be noted that previous research has indicated that cross-age tutoring does have significant positive effects for the tutees and can be used with confidence as an intervention for tutees (Galezio et al., 1994; Juel, 1991; Wright & Cleary, 2006). Overall, it is recommended that a teacher finds more research on this topic before deciding to implement cross-age tutoring with the hopes of improving reading comprehension, fluency, and attitudes for student tutors who are also struggling with reading. Due to the fact that no statistically significant effects were found in the results of this study, it is important that more research be analyzed to better understand its effects.
REFERENCES CITED
REFERENCES CITED


75


doi:10.1177/0165025414560447


Reading Attitude Survey (Kindergarten Version)

Please circle the number below your chosen response.

I like to read.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I am a good reader.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Reading in front of people makes me nervous.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

My parents read to me at home every night.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I think reading is important.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
I like reading with an older student.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I can learn from reading with someone older.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX B
Reading Attitude Survey (3rd Grade Version)

Please circle the number below your chosen response.

I like to read.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I am a good reader.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Reading aloud in front of people makes me nervous.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I read at home every night.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I like fiction (made up) stories.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
I like non-fiction (true) stories.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I think reading is important.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I like helping younger kids read.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I can learn from helping others.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

What makes a good reader?
Questions for my Reading Partner

What is your favorite story?

What kinds of stories do you like to listen to (cars, princesses, etc.)?

Do you like pretend stories or stories about real things?

Are there any stories that you really do not like to listen to?
APPENDIX D
Questions To Ask During Reading

1. Where is the title, author’s name, front cover, back cover, title page?
2. Where do I start reading?
3. Which way do I go?
4. Where do I go after that?
5. What is the main character doing on this page?
6. How do you think the main character in this story feels?
7. Do you like this story? Why?
8. What was your favorite part of the story?
10. What is this story mostly about?