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Effect of Latinos in Action Peer Tutoring on Elementary Student  
Oral Reading Fluency Scores

Darren M. Hansen

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Educational Specialist

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## ABSTRACT

### Effect of Latinos in Action Peer Tutoring on Elementary Student Oral Reading Fluency Scores

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The Latino population is the largest minority group in the United States, making up 16.3% of the total population. As the Latino population of the US grows, the Latino student population within schools across the nation is also growing, accounting for 10.5% of the student population. While the Latino student population continues to grow, there is evidence that this group is not achieving academically at the same rate as other groups. Latino statistics in Utah showed a similar situation within public schools. Fifty-one percent of Latino fourth graders were reading below the expected levels, compared to 22% for Caucasian students. Latino student dropout rates were higher than other groups at 28%, compared to 13% for African American students and 7% for Caucasian students. Students who fail to learn to read are more likely to fail in school. One reason why Latinos graduate at a lower rate is that Latino literacy rates in the U.S. and Utah are lower than other groups. An effective literacy program was needed to assist Latino elementary school students in literacy. Latinos in Action (LIA), a secondary school tutoring program, trained Latino secondary students as tutors for Latino elementary school students. Students' progress was tracked using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency (ORF) measure. LIA tutored ELL students' ORF progress was compared to the ORF scores of ELL students who did not receive LIA tutoring, ELL students in Spanish dual-immersion instruction who did not receive LIA tutoring, and native English speakers who did not receive LIA tutoring or dual-immersion instruction. Results showed that LIA tutoring was not statistically more or less effective than general instruction on dual-immersion instruction for improving ORF scores for ELL students. Larger sample sizes are needed to increase the validity of this study.

Keywords: Latino, literacy, tutoring, reading fluency, Spanish dual immersion, English language learner

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## TABLE OF CONTENTS

TITLE PAGE.....	i
ABSTRACT.....	ii
ACKNOWLEDGMENTS .....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vi
LIST OF FIGURES .....	viii
Chapter 1: Introduction.....	1
Utah Latino Population and Education Statistics.....	1
Latino Reading Difficulties.....	2
Oral Reading Fluency .....	3
Peer Tutor Instruction .....	4
Latinos in Action.....	4
Research Hypotheses .....	5
Chapter 2: Literature Review.....	6
Utah Latino Population and Education Statistics.....	7
Common Academic Challenges for Latino Students.....	7
Latino Reading Difficulties.....	9
Oral Reading Fluency .....	10
Peer Tutor Instruction .....	12
Latinos in Action.....	13
Dual-Immersion Instruction.....	14
Research Questions.....	15
Chapter 3: Methods.....	17
Setting.....	17
Participants.....	17
Tutors .....	17
Tutees.....	18
Control groups .....	18
Tutor Instruction .....	19
Measure.....	19

Procedure .....	20
Data Analysis .....	21
Chapter 4: Results .....	23
Chapter 5: Discussion .....	37
Limitations .....	39
Future Research .....	40
Conclusion .....	42
References.....	43

## LIST OF TABLES

1.	<i>Number and Percent of Students in Each Learner Group</i> .....	23
2.	<i>Number and Percent of Students in Each Grade</i> .....	23
3.	<i>Results of Split-Plot ANOVA for All Learner Groups, All Grades, and Time for WCPM</i> .....	24
4.	<i>Between-Subject Effects for All Learner Groups, All Grades, and Time for WCPM</i> ...	24
5.	<i>Dunnett Post Hoc for All Learner Groups, All Grades, and Time for WCPM, Upper and Lower Bounds</i> .....	25
6.	<i>Results of Split-Plot ANOVA for All Learner Groups, All Grades, Time for Accuracy</i> .....	26
7.	<i>Between-Subject Effects for All Learner Groups, All Grades, and Time for Accuracy</i> .....	26
8.	<i>Dunnett Post Hoc for All Learner Groups, All Grades, and Time for Accuracy, Upper and Lower Bounds</i> .....	27
9.	<i>Results of Split-Plot ANOVA for ELL Learner Groups, All Grades, and Time for WCPM</i> .....	28
10.	<i>Between-Subject Effects for ELL Learner Groups, All Grades, and Time for WCPM</i> .....	28
11.	<i>Dunnett Post Hoc for ELL Learner Groups, All Grades, and Time for WCPM, Upper and Lower Bounds</i> .....	29
12.	<i>Results of Split-Plot ANOVA for ELL Learner Groups, All Grades, and Time for Accuracy.</i>	30
13.	<i>Between-Subject Effects for ELL Learner Groups, All Grades, and Time for Accuracy</i> .....	30
14.	<i>Dunnett Post Hoc for All Learner Groups, All Grades, and Time for Accuracy, Upper and Lower Bounds</i> .....	31
15.	<i>Results of Split-Plot ANOVA for ELL Learner Groups, Second Grade, and Time for WCPM</i> .....	32
16.	<i>Between-Subject Effects for ELL Learner Groups, Second Grade, and Time for WCPM</i> .....	32

17.	<i>Dunnett Post Hoc for ELL Learner Groups, Second Grade, and Time for WCPM, Upper and Lower Bounds</i> .....	33
18.	<i>Results of Split-Plot ANOVA for ELL Learner Groups, Second Grade, and Time for Accuracy</i> .....	34
19.	<i>Between-Subject Effects for ELL Learner Groups, Second Grade, and Time for Accuracy</i> .....	34
20.	<i>Dunnett Post Hoc for all Learner Groups, Second Grade, and Time for Accuracy, Upper and Lower Bounds</i> .....	35

## LIST OF FIGURES

1.	<i>Estimated Marginal Means of All Learner Groups, All Grades, for WCPM .....</i>	25
2.	<i>Estimated Marginal Means of All Learner Groups, All Grades, for Accuracy.....</i>	27
3.	<i>Estimated Marginal Means of ELL Learner Groups, All Grades, for WCPM.....</i>	29
4.	<i>Estimated Marginal Means of ELL Learner Groups, All Grades, for Accuracy.....</i>	31
5.	<i>Estimated Marginal Means of ELL Learner Groups, Second Grade, for WCPM.....</i>	33
6.	<i>Estimated Marginal Means of ELL Learner Groups, Second Grade, for Accuracy....</i>	35

## **Chapter 1: Introduction**

In 2010, the U.S. Census Bureau (2010) reported that the Latino population was the largest minority group in the US, making up 16.3% of the total population. The Latino population has grown as a percentage of the U.S. population from 4.6% in 1966 to a projected 20% by 2020 or 2030 (U.S. Census Bureau, 2010). School population data collected during the 2004-2005 school year show that there were 5.1 million English language learner (ELL) students attending U.S. public schools. That accounted for 10.5% of the student population, and 79% of ELL students speak Spanish as their first language (Garcia, Kleifgen, & Falchi, 2008; Payan & Nettles, 2006). Approximately 45% of the Latino population could be classified as ELL (Lazarín, 2006).

### **Utah Latino Population and Education Statistics**

The Utah Latino population percentage reflected U.S. percentages, constituting 13.2% of the population (U.S. Census Bureau, 2013). Utah schools had a large Latino student population. According to state figures from the 2010-2011 school year, Latino students comprised 15% of the student population (Utah State Office of Education, 2012a). Some schools in Utah had Latino populations that exceeded 50% of the total student population (Morgan, Ashbaker, & Enriquez, 2004).

Utah Latinos graduated at a much lower rate than other racial groups in the state. In 2011, only 55% of Latino students graduated compared to 80% of Caucasian students, 72% of Asians, and 61% of African American students. ELL students graduated at an even lower rate of 45% in the state (Brigham Young University Center for the Improvement of Teacher Education & Schooling, 2013). Latino students in Utah also struggled with literacy scores on standardized tests. On the Language Arts test of the Core Criterion-Referenced Tests, Latinos and African

Americans had a passing rate of 64.6% while Caucasians and Asians had passing rates of 86.4% and 81.8% respectively (Brigham Young University Center for the Improvement of Teacher Education & Schooling, 2013).

### **Latino Reading Difficulties**

In the US, 80% of students referred to special education were referred for reading problems (Nelson & Machek, 2007). It was also found that 9 out of 10 students who were poor readers in first grade were still poor readers by the fourth grade (Denton, Anthony, Parker, & Hasbrouck, 2004; Juel, 1988; Torgesen & Burgess, 1998). These students had a 75% chance of still being poor readers by the time they reached high school (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996).

Jimenez (1994; 1997) found that bilingual readers might eventually transfer some skills from Spanish to English, but that these students often need individual instruction on how to do this. In Utah, the majority of teachers do not speak Spanish. Even if there were more bilingual teachers, few teachers had the time to provide personalized instruction for ELL students, or appropriate reading materials for these students (Dufrene & Warzak, 2007).

Many researchers have suggested the use of fluency training for ELL students to improve their language abilities (Arevart & Nation, 1991; Baker & Good, 1995; De Ramirez & Shapiro, 2006; Nation, 2009; Riedel, 2007; Schmidt, 1992; Segalowitz, 2000; Segalowitz & Segalowitz, 1993; Wiley & Deno, 2005). The National Reading Panel made Oral Reading Fluency (ORF) one of their five basic areas of literacy instruction (2000). Before discussing ORF for ELL students, it is important to understand the nature of this skill.

## **Oral Reading Fluency**

ORF was defined as the rate of words correct per minute (WCPM) at which a person reads a passage aloud. Perfetti (1985) suggested that ORF was an important aspect of literacy because a student who reads at a very slow rate is using all of his or her attention on identifying each word. The student has little to no attention left to gain any meaning from the sentence he or she is reading.

Three elements are often considered as part of ORF: accuracy, rate, and prosody (Cowie, Douglas-Cowie, & Wichmann, 2002; Hudson, Lane, & Pullen, 2005; Jenkins, Fuchs, van Den Broek, Espini, & Deno, 2003; Kuhn & Stahl, 2003; National Reading Panel (US) & National Institute of Child Health and Human Development, 2000a; National Reading Panel (US) & National Institute of Child Health and Human Development, 2000b; Schwanenflugel et al., 2009). Accuracy describes the ability to read words correctly, rate describes how fast a person reads the words in a passage, and prosody describes the ability to read expressively, with the correct intonations, stress patterns, and phrasing (Hudson et al., 2005).

Many studies have demonstrated that ORF was a good indicator of a student's overall reading skills (Daane, Campbell, Grigg, Goodman, & Oranje, 2005; Fuchs, Fuchs, Hosp, & Jenkins, 2001; McGlinchey & Hixson 2004; Stahl & Kuhn, 2002; Wiley & Deno, 2005; Yovanoff, Duesbery, Alonzo, & Tindal, 2005). ORF was also shown to be a good indicator of students' performance on end-of-grade tests (McGlinchey & Hixson, 2004; Stage & Jacobsen, 2001). McGlinchey and Hixson (2004) measured the WCPM of students on grade level passages two weeks prior to state testing. They found an overall correlation of .64 between the WCPM scores and literacy scores on the standardized test. This score gives some evidence that ORF is a marginally telling method for schools to use in conjunction with other scores to predict success

on standardized reading tests. In an era of high stakes testing, factors such as DIBELS ORF scores that help school districts track the success of their students before testing occurs are valuable. By improving DIBELS ORF scores, districts can feel that they are making some progress towards improving their student literacy skills and literacy test scores.

### **Peer Tutor Instruction**

One method that has been used to deliver ORF instruction to students is peer tutoring (Cohen, 1986; Cohen, Kulik, & Kulik, 1982; Hoff & Robinson, 2002; Paterson & Elliott, 2011). Peer tutoring interventions have been shown to improve reading outcomes (Greenwood et al., 1984; McMaster, Fuchs & Fuchs, 2006; Yurick, Robinson, Cartledge, Low, & Evans, 2006). In order for the students' primary language skills to transfer to English, peer tutors that speak the students' language would be most beneficial (Jimenez, 1994; 1997).

### **Latinos in Action**

One peer tutoring program that was created with the goal of helping Latino elementary school students improve their ORF is Latinos in Action (LIA). The LIA program seeks to improve Latino academic achievement in many ways. ORF was one area that the program tries to improve amongst elementary school Latino students through cross-age peer tutoring. Latino high school and middle school students who are in the LIA program tutor Latino elementary school students in reading. The tutors give the Latino elementary school students individual instruction weekly to help improve their reading skills. The LIA program hopes to increase the overall reading achievement of the elementary school students. But no research had been done to assess the effectiveness of the LIA tutoring program on the ORF skills of the Latino elementary school students.

## **Research Hypotheses**

This study was designed to assess the LIA program's effectiveness at helping Latino elementary school students improve their ORF through peer tutoring. We hypothesized that the mean rate of improvement of Latino ELL tutees' ORF scores would increase at a significantly higher rate than the mean rate of improvement of non-tutored Latino ELL students' scores. We further hypothesized that the Latino ELL tutees mean improvement rates would not be significantly higher than the native English-speaking students who only received general classroom instruction. We further hypothesized that ELL students in Spanish and English dual-immersion classrooms would improve at a significantly faster rate on ORF measures than ELL students who received English classroom instruction and ELL tutoring.

## Chapter 2: Literature Review

In 2010, The U.S. Census Bureau (2010) reported that the Latino population was the largest minority group in the US, making up 16.3% of the total population. The Latino population has grown as a percentage of the U.S. population from 4.6% in 1966 to a projected 20% by 2020 or 2030 (United States Census Bureau, 2010).

As the Latino population in the US grows, the Latino student population within schools across the nation is also growing. School population data collected during the 2004-2005 school year show that there were 5.1 million ELL students attending U.S. public schools. That accounted for 10.5% of the student population, and 79% of ELL students speak Spanish as their first language (Garcia et al., 2008; Payan & Nettles, 2006). Approximately 45% of the Latino population could be classified as ELL (Lazarín, 2006). Fry and Gonzalez (2008) estimated that Latino students accounted for one of every eight students in the US. The estimate rose to one in five students by 2008 (Fry & Gonzales, 2008). This fast-paced growth was expected to continue, possibly increasing by 166% by 2050 (Fry & Gonzales, 2008).

While the Latino population continued to grow in the nation's schools, there was evidence that this group was not achieving academically at the same rate as other groups. The National Center for Education Statistics (2009) reported that 51% of Latino fourth graders were reading below the expected levels, compared to 22% for White, non-Hispanic students. The difficulties that Latino students faced are reflected in the dropout rates of these students compared to other groups. The dropout rate for Latino students was at 28%, compared to 13% for African American students and seven percent for Caucasian students (Kaufman, Alt, & Chapman, 2000).

## **Utah Latino Population and Education Statistics**

The Utah Latino population percentage reflected the nation as a whole, constituting 13.2% of the population (U.S. Census Bureau, 2013). This was the largest minority group in the state, with no other minority group making up more than 2.2%, including African Americans, Pacific Islanders, Asians, and American Indians (Utah State Office of Education, 2012b).

Utah schools also had a large Latino student population. According to state figures from the 2010-2011 school year, 88,135 of the 587,745 students enrolled in Utah public schools were Latino students, comprising 15% of the student population (Utah State Office of Education, 2012a). Some schools in Utah had Latino populations that exceed 50% of the total student population (Morgan et al., 2004).

Latinos in Utah performed on average similarly to Latino students nationwide. Utah Latinos graduated at a much lower rate than all other racial groups in the state. In 2011, only 55% of Latino students graduated compared to 80% of Caucasian students, 72% of Asians, and 61% of African American students. ELL students graduated at an even lower rate of 45% in the state (Brigham Young University Center for the Improvement of Teacher Education & Schooling, 2013). Latino students in Utah had also struggled with literacy scores on end-of-year standardized tests. On the Language Arts test of the Core Criterion-Referenced Tests, Latinos had a passing rate of 64.6% while Caucasians and Asians had passing rates of 86.4% and 81.8% respectively. African Americans had the same passing rate as Latinos (USOE, 2012).

## **Common Academic Challenges for Latino Students**

As national and state data showed that Latino students were performing at a lower level on average than other racial and ethnic groups, many researchers were attempting to explain the challenges faced by Latino students (Cauce & Jacobson, 1980; Cofresi & Gorman, 2004).

Language issues were the most basic problem for ELL students who did not speak English proficiently because they do not fully understand tests written in English (Cofresi & Gorman, 2004). Even when the test administrator spoke Spanish or the test was translated, there were a wide variety of vocabulary preferences and usages between different countries, regions and social classes (Cofresi & Gorman, 2004). The test administrator or translator cannot always match the vocabulary of every student perfectly. Also, if the test administrator used English or Spanish vocabulary that was too refined, academic, or that had a culturally higher status than the student; the student might have felt inferior, adding to the student's anxiety. Cauce and Jacobson (1980) suggested that test writers should do their best to ensure that the measures they are using are translated in a way that makes them as understandable as possible to the student.

Latino students may not be familiar with certain academic settings. Cofresi and Gorman (2004) pointed out that the business-like, cold, and brisk behavior of a non-Latino test administrator might lead to negative reactions from the student. Also, computer testing or instruction may be unfamiliar to students who have not had sufficient exposure to computers in the past (Cofresi & Gorman, 2004).

The use of standardization and norms in assessments could also cause cultural issues (Cofresi & Gorman, 2004). Most assessments used in the US were standardized using groups of native English speaking students acculturated to the U.S. school system (Valdés & Figueroa, 1996). These norms cannot accurately measure the performance of students that are not equally acculturated to the U.S. culture. Even tests that have been standardized specifically for Latinos often consider Latinos as a homogeneous group, despite dialect differences, cultural differences in school styles, varying levels of acculturation to the US, and varying socioeconomic statuses. When this occurs, the tests are more likely to measure the student's level of acculturation to the

US rather than their actual cognitive ability and academic achievement (Valdés & Figueroa, 1996).

Cauce and Jacobson (1980) challenged the assumption that testing could be culture-free. Even when test items were created with much effort to make each culture-free, the premise of the test still assumed that different cultures will still have the same motivations to do well on the test, require the same amount of time to complete each test, and the same amount of exposure to the various styles of items on the test (Cauce & Jacobson, 1980). These assumptions may have led to Latino students being judged negatively because they did not compare well to other groups that may have had more experience with that type of test.

### **Latino Reading Difficulties**

Language difficulties, specifically reading, are issues that are easier for the schools to address. One author stated, “For many minority-language children, reading is the beginning of school failure” (McLaughlin, 1987, p. 58). In the U.S., 80% of students referred to special education were referred for reading problems (Nelson & Machek, 2007). It has also been found that 9 out of 10 students who were poor readers in first grade were still poor readers by the fourth grade (Denton et al., 2004; Juel, 1988; Torgesen & Burgess, 1998). These students had a 75% chance of still being poor readers by the time they reached high school (Francis et al., 1996).

There is evidence suggesting that elementary school may be a critical period in which low reading skills can be corrected. Denton et al. (2004) found that even an intensive and multicomponent reading intervention with linguistically diverse middle school students showed little significant improvement in word recognition, comprehension or fluency when they were compared to a control group of students who received general instruction only. This suggests that by the time students reach middle school those students who struggle with reading are very

unlikely to significantly improve. Therefore, reading interventions need to take place during elementary school.

Jimenez (1994; 1997) found that bilingual readers might eventually transfer some skills from Spanish to English, but that these students often need individual instruction on how to do this. In Utah, the majority of teachers do not speak Spanish. Necessary individual instruction in Spanish and English is therefore unavailable. Even if there were more bilingual teachers, few elementary school teachers had either the time to provide personalized instruction for ELL students, or the appropriate reading materials for these students (Dufrene & Warzak, 2007). A solution is needed that will not add another demand on teachers' time.

Many researchers have suggested the use of fluency training for ELL students to improve their language abilities (Arevart & Nation, 1991; Baker & Good, 1995; De Ramirez & Shapiro, 2006; Nation, 2009; Riedel, 2007; Schmidt, 1992; Segalowitz, 2000; Segalowitz & Segalowitz, 1993; Wiley & Deno, 2005). The National Reading Panel made ORF one of their five basic areas of literacy instruction (2000). Before discussing ORF for ELL students, it is important to understand the nature of this skill.

### **Oral Reading Fluency**

ORF was defined as the rate of WCPM at which a person reads a passage aloud. Perfetti (1985) suggested that ORF was an important aspect of literacy because a student who reads at a very slow rate is using all of his or her attention on identifying each word. The student has little to no attention left to gain any meaning from the sentence he or she is reading. Students struggling to piece together the words in a passage can forget what words came first by the time they reach the end of the sentence. LaBerge and Samuels (1974) wrote that when readers

developed more automaticity as they read words, the attention capacity previously occupied with word identification was available for more advanced reading skills, such as comprehension.

Three elements are often considered as part of ORF: accuracy, rate (sometimes referred to as ‘automaticity’), and prosody (Cowie et al., 2002; Hudson et al., 2005; Jenkins et al., 2003; Kuhn & Stahl, 2003; National Reading Panel (US) & National Institute of Child Health and Human Development, 2000a; National Reading Panel (US) & National Institute of Child Health and Human Development, 2000b; Schwanenflugel et al., 2009). Accuracy describes the students’ ability to read words correctly, rate describes how fast a person reads the words in a passage, and prosody describes the person’s ability to read expressively, with the correct intonations, stress patterns, and phrasing (Hudson et al., 2005). Accuracy and rate are reported as WCPM (York, Foorman, Santi, & Francis, 2011). ORF is improved over time with frequent opportunities to practice accurate reading (Grabe, 2010).

Many studies have demonstrated that ORF is a good indicator of a student’s overall reading skills (Daane et al., 2005; Fuchs et al., 2001; McGlinchey & Hixson 2004; Stahl & Kuhn, 2002; Wiley & Deno, 2005; Yovanoff et al., 2005). ORF was also shown to be a good indicator of students’ performance on end-of-grade tests (McGlinchey & Hixson, 2004; Stage & Jacobsen, 2001). McGlinchey and Hixson measured WCPM of students two weeks prior to state testing. They found an overall correlation of .64 between the WCPM scores and literacy scores on the standardized test. This score gives some evidence that ORF is a marginally telling method for schools to use in conjunction with other scores to predict success on standardized reading tests. In an era of high stakes testing, factors such as DIBELS ORF scores that help school districts track the success of their students before testing occurs are valuable. By

improving DIBELS ORF scores, districts can feel that they are making some progress towards improving their student literacy skills and literacy test scores.

Though ORF has been tested widely with primary language readers, less research has been done to demonstrate its effectiveness when used with students in their secondary language (Baker & Good, 1995; De Ramirez & Shapiro, 2006; Reschly, Busch, Betts, Deno, & Long, 2009; Wiley & Deno, 2005). Research suggests that ORF was an even better indicator of overall reading skills for ELL students than for native English readers (Riedel, 2007). Other studies have shown ORF training as an effective intervention for all racial groups and for students of low socioeconomic status (Turner, 2010). Other studies found ORF to overpredict ELL students' reading abilities (Crosson & Lesaux, 2010; Klein & Jimerson, 2005).

### **Peer Tutor Instruction**

Despite evidence supporting the usefulness of ORF instruction, teachers often neglected it due to increased demands placed on them to spend more time on comprehension tasks and to prepare students for state standardized tests (Hoff & Robinson, 2002; National Reading Panel, 2000; Topping, 2006). In order to implement ORF instruction on a one-on-one basis for ELL students while not increasing the demands on the general classroom teacher, someone other than the general education teacher will need to deliver it. One method that has been used to deliver ORF instruction to students is peer tutoring (Cohen, 1986; Cohen et al., 1982; Hoff & Robinson, 2002; Paterson & Elliott, 2011).

Karcher (2005) distinguished peer tutoring programs from peer mentoring programs by identifying the peer program's main goal(s). If the peer program's goals focus on academics and teaching, it is a tutoring program. The program's goals will be largely instructional. If the program focuses on relationship development and helping the tutor understand their value as a

person, then it is a mentoring program. Karcher also states that some overlap can be expected (2005). Peer tutoring interventions have been shown by several researchers to improve reading outcomes (Greenwood et al., 1984; McMaster et al., 2006; Yurick et al., 2006). In order for the students' primary language skills to transfer to English, peer tutors that speak the students' language were most beneficial (Jimenez, 1994; 1997). Peer tutors can also provide reinforcement to the students in ways a teacher cannot, such as prosocial peer interactions which may help the student maintain the positive effects of the tutoring (Hofstadter-Duke & Daly, 2011).

Training the tutors well is also important. O'Keeffe, Slocum, and Magnusson (2013) found that the training non-teachers who provide supplemental reading received was often ineffective. In their study, when the non-teachers were trained effectively the reading fluency training for the students became more effective.

### **Latinos in Action**

One peer tutor program that was created with the goal of helping Latino elementary school students improve their ORF is LIA. LIA was established in the state of Utah to improve Latino academic performance and graduation rates. Dr. Jose Enriquez founded the program in 2001 (Enriquez, 2012). The program began with 35 students and had grown to 1375 students in 60 Utah schools, as well as a small number of schools in Washington State and Idaho (Enriquez, 2012). Since its creation, 4,380 secondary students have been enrolled in LIA and many more thousands of elementary school level students have been tutored.

The LIA program seeks to improve Latino academic achievement in many ways. ORF was one area that the program tries to improve amongst elementary school Latino students through cross-age peer tutoring. Latino high school and middle school students who are in the

LIA program tutor Latino elementary school students in reading. The tutors give the Latino elementary school students individual instruction weekly to help improve their reading skills. By providing Latino elementary school students personal reading instruction with the Cross-age Tutoring program, the LIA program hopes to increase the overall reading achievement of the elementary school students. According to Enriquez (2012), students in the class received training to become paraprofessionals and to provide literacy tutoring. The class also included upwards of 100 hours of service, including the literacy tutoring in the elementary schools and translating for parents who do not speak English during parent teacher conferences.

Studies have shown that the LIA program was effective in various ways at helping Latino students graduate from high school (Enriquez, 2012; Simonds, 2012). But no research had been done to assess the effectiveness of the LIA tutoring program on the ORF skills of the Latino elementary school students.

### **Dual-Immersion Instruction**

Another way that states and school districts tried to improve instruction to more effectively support ELL student achievement was through Spanish and English dual-immersion instruction. Cobb, Vega, and Kronauge (2006) showed that students in dual-immersion elementary school classrooms showed improved scores in reading, writing, and math for both native English and Spanish speaking students. In the school that assisted with this study, students in dual-immersion classrooms received instruction for half the school day in English. For the other half of the day another teacher that only spoke to the students in Spanish taught the class. By being immersed in the two languages for hours at a time for an entire school year or for multiple school years, the students learned each language. Dual-immersion has been shown

to be successful in helping native English speakers as well as native Spanish speakers learn the native and the new language effectively in most cases (Cobb et al., 2006).

The school district used in this study employed Spanish and English dual-immersion instruction at every elementary school and the intermediate school. Students in dual-immersion must be continuously enrolled in a dual-immersion program in order to continue to receive dual-immersion instruction in later grades. Special education students participated in dual-immersion if they and their parents chose to do so. The elementary school that agreed to provide data for this study requested that the study also include comparisons with dual-immersion ELL students. The administrators wanted to see how Spanish dual-immersion instruction affected ORF scores compared to the other ELL or native English speaking groups. Since dual-immersion was a commonly used method of serving ELL students, it fit well with the purposes of this study. That being said, it was not the main focus of this study, but a control group to compare with ELL students who received LIA tutoring.

### **Research Questions**

This study was designed to assess the LIA program's effectiveness at helping Latino elementary school students improve their ORF through peer tutoring. This study addressed the following research questions:

1. Does LIA peer tutoring increase the mean rate of improvement of elementary school Latino ELL tutees at a higher rate than the mean rate of improvement for non-tutored Latino ELL peers on ORF measures?
2. Does LIA peer tutoring increase the mean rate of improvement of elementary school Latino ELL tutees compared to the mean rate of improvement for non-tutored native English speaking peers on ORF measures?

3. Do LIA tutoring data show a significant effect that justifies LIA tutoring and the time that students are being pulled from their general classroom instruction?
4. Is LIA tutoring a more effective method of improving ORF improvement rates for ELL students than Spanish and English dual-immersion instruction?

We hypothesized that the mean rate of improvement of Latino ELL tutees' ORF scores would increase at a higher rate than the mean rate of improvement of non-tutored Latino ELL students' scores. We hypothesized that the Latino ELL tutees mean improvement rates would not be higher than the native English-speaking students who only received general classroom instruction. We further hypothesized that ELL students in Spanish and English dual-immersion classrooms would improve at a faster rate on ORF measures than ELL students who received English classroom instruction and ELL tutoring. If the mean improvement rates for LIA tutored Latino ELL students were higher than non-tutored Latino ELL students, we felt that this would justify the implementation of LIA peer tutoring. If mean improvement rates for LIA tutored Latino ELL students were the same or slower than ELL students who do not receive tutoring, then this would bring into question the use of LIA tutors in elementary schools as an effective reading intervention for ELL students.

## Chapter 3: Methods

### Setting

Participants for this study were recruited from the middle school and an elementary school in a school district in Utah. The middle school and elementary school from the school district that participated in the study were chosen because of their participation in LIA peer tutoring and thorough DIBELS testing for every elementary school student.

### Participants

Participants for this study were recruited from the middle school and elementary schools in the same Utah school district. The middle school and elementary school in the school district that participated in the study were chosen because of their participation in LIA peer tutoring. Elementary school students were in the first to fourth grade. In total, the data of 81 elementary school students were analyzed. Researchers received Institutional Review Board (IRB) approval before receiving student data from the school district. The school faculty removed student names before being given to researchers. Since no student identifiers were being given to researchers and no modifications were being made to student curriculum other than those already approved by the students' parents, no consent from the students or their parents was required.

**Tutors.** Tutors were Latino students who were enrolled in LIA programs at the middle school in the Utah school district. All tutors were Latino, and meet the requirements for acceptance into LIA. These requirements included having a minimum 2.0 GPA. The LIA instructor trained the tutors on how to perform ORF instruction to tutees, as well as on how to administer a DIBELS ORF measure. Students attended their LIA class twice a week for the school year. All 24 tutors were in the seventh or eighth grades.

**Tutees.** Tutees for this study were elementary school students who received tutoring from LIA tutors. Students' grade levels in school range from first to fourth grade. The middle school LIA program contacted the general classroom teachers in the elementary school to offer tutoring services. The elementary school teachers who agree to participate provided a list of students that were struggling in reading to the LIA instructor. These students then received tutoring throughout the year. Students receiving special education services in reading were not included in the study because of their modified instructional needs. Special Education students receive more instruction in reading than students who receive only the general education curriculum.

**Control groups.** The first control group for this study consisted of Latino ELL students in a school district in Utah from the same school as the Latino ELL tutees. These students received no tutoring either because they did not want it or because their teachers did not select them to participate. These students only received the general reading instruction of their school.

The second control group consisted of native English speaking elementary school students in the same elementary school as the Latino tutees and Latino nontutees. These students received the same general reading instruction as the ELL students, but received no tutoring. The race of these students did not need to be homogenous because the main focus for this study was that they were native English speakers. That being said, we anticipated that the majority would be Caucasian given the district's population percentages.

The third control group for this study was a group of ELL students at the same elementary school as the other groups that received Spanish and English dual-immersion classroom instruction. These students do not receive LIA tutoring. Dual-immersion students

received similar instruction as other students in the general education classroom, but half of the day was taught in Spanish instead of English.

### **Tutor Instruction**

LIA tutors were trained using the Cross-Age Tutoring manual published by the Utah State Office of Education (2009). Tutors were trained for approximately a month by their LIA instructor before tutoring began. Training continued during the school year when tutors were in the LIA class. Tutors were trained to offer instruction in the areas of reading comprehension, fluency, sight words, and phonics. Tutors were also trained to administer the DIBELS ORF test. Tutoring typically occurred twice a week in the elementary school for a half hour each session.

### **Measure**

The DIBELS (6<sup>th</sup> edition) ORF measures were used to assess the elementary school students' reading growth. This was a commonly used measure of accurate and fluent reading of connected texts (Good & Kaminski, 2002). Students were asked to read three appropriate grade level passages from the DIBELS manual. The students read the passages out loud for one minute. The test administrator then recorded the number of words read correctly during that minute. The score was reported as the number of WCPM. The test administrators recorded the scores on paper or on a computer. The entire DIBELS measure took five to 10 minutes to administer.

Research on the DIBELS ORF measure showed that it had moderate validity and reliability (Stoolmiller, Biancarosa, & Fien, 2013). Scores on the DIBELS ORF measure for students in the first through third grades had a concurrent correlation with scores on norm-referenced tests that were between .60 and .85 (Baker, et al., 2008; Biancarosa, Bryk, & Dexter, 2010; Roberts, Good, & Corcoran, 2005; Roehrig, Petscher, Nettles, Hudson, & Torgesen, 2008;

Schilling, Carlisle, Scott, & Zeng, 2007). Studies have shown that the predictive validity for scores on end-of-year comprehensive reading tests was between .60 and .75 (Baker et al., 2008; Roehrig et al., 2008; Schilling et al., 2007). Alternate form reliability data for the different forms of the test average between .90 and .95 (Baker et al., 2008; Biancarosa et al., 2010; Dynamic Measurement Group, 2008; Roberts et al., 2005). The Dynamic Measurement Group (2008) provided an extensive review of the validity and reliability of the DIBELS ORF measure in *DIBELS 6th Edition Technical Adequacy Information*.

Past studies have utilized the DIBELS ORF measure in order to show the participating students' ORF scores and to perform benchmark testing in order to track improvement (O'Keeffe et al., 2013). Using the DIBELS measure was a convenient measure for many researchers to use in their studies because it was a common measure that was already being utilized in many schools (Stoolmiller et al., 2013).

### **Procedure**

LIA tutors were trained using the Cross-Age Tutoring program provided by the Utah State Office of Education (2009). The school faculty, the cross-age tutoring coordinator, parents, the tutee, and tutors learned from the program materials how to work together to improve the reading ability of the tutees (USOE, 2009). The program included research-based reading tutoring interventions in areas such as comprehension, phonograms, sight words, and ORF. Once tutors were trained, they visited their tutees at the selected elementary schools twice a week for 30 minutes. Tutees were pulled from class and met with their tutor one-on-one, typically in the school's hallway or an unoccupied classroom. Students received tutoring for 30 minutes before returning to class. In order to ensure program implementation integrity, tutors reported to their instructor what tutoring activities had been done that day. The LIA instructor charted each

tutee's instruction and walked through the halls, observing the instruction to assure that it was being done properly.

All groups were given the DIBELS ORF measures on the same day, at the beginning, middle, and end of the school year. Trained district faculty members, including special education teachers and reading tutors, gave the DIBELS ORF measure in the fall, winter, and spring. The school faculty member in charge of the DIBELS data then selected students that met the criteria for each experimental and control group, selecting students randomly. Names of tutees were replaced with participant numbers before being given to researchers in order to assure confidentiality.

### **Data Analysis**

Once data were collected, the mean rates of improvement were analyzed for the four groups. Students' improvement on the DIBELS ORF measure across benchmark tests were analyzed, regardless of the grade of the students. The Latino ELL tutee group's mean rate of improvement was compared to the three other groups in order to determine if the Latino ELL tutee group made gains at a higher rate than the ELL non-tutee group or the ELL dual-immersion group approached or surpassed the native English speaker group, or had a negative or negligible effect compared to other groups. The differences in the rate of improvement were analyzed for significance using a mixed design ANOVA. The mixed design ANOVA model was chosen because it tested for differences between multiple independent variables and permitted analysis of repeated measures. It was well suited to the four independent groups (one experimental and three control groups) in this study and the repeated ORF measured for the participants. It also analyzed between subjects and within subjects. The results were then analyzed using the

Dunnett's Post Hoc Test in order to control the error rate, since multiple comparisons of the experimental group with control groups were performed.

## Chapter 4: Results

Students were selected from four groups: ELL students in general education classes who received tutoring from LIA tutors, ELL students in general education classes who did not receive tutoring from LIA tutors, ELL students in dual-immersion classes who did not receive LIA tutoring, and Native English speaking students in general education classes who did not receive LIA tutoring. Students were in grades first through fourth. The numbers of students in each group are shown in Table 1. The number of students in each grade is shown in Table 2. Overall, 81 students' DIBELS scores were used in the study. Group sizes ranged from 18 to 24 students.

Table 1

*Number and Percent of Students in Each Learner Group*

Learner group	Frequency	Percent
ELL LIA	24	29.6
ELL not tutored	18	22.2
ELL dual immersion	20	24.7
English only	19	23.5
Total	81	100.0

Table 2

*Number and Percent of Students in Each Grade*

Grade	Frequency	Percent
First	19	23.5
Second	26	32.1
Third	18	22.2
Fourth	18	22.2
Total	81	100.0

First, the researchers ran the statistics while ignoring grade level. All four groups were compared with students in each grade level counted together. DIBELS data from three different assessment periods were gathered: beginning of year (BOY), middle of year (MOY), and end of

year (EOY). In order to compare all four groups' improvement over time, statistical analysis was performed using a Split-Plot ANOVA. This tests the effects of more than one independent variable when within-subjects and between subjects repeated measures are present. A Dunnett Post Hoc analysis was then performed.

The first 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each learner group and time (BOY, MOY, EOY) on ORF scores, reported in WCPM. No significant main effects or interactions were found. Results are found in Table 3. Between-Subject effects were also not significant, shown in Table 4. The Dunnett Post Hoc analysis was then performed and is reported in Table 5. Figure 1 gives a line graph of the Estimated Marginal means for the first analysis.

Table 3

*Results of Split-Plot ANOVA for All Learner Groups, All Grades, and Time for WCPM*

Source	Time	Type III sum			F	Sig.
		of squares	df	Mean square		
time	Linear	30731.985	1	30731.985	102.876	.000
	Quadratic	986.251	1	986.251	9.498	.003
time * LEARNER	Linear	932.514	3	310.838	1.041	.382
	Quadratic	21.286	3	7.095	.068	.977
Error (time)	Linear	17027.519	57	298.728		
	Quadratic	5918.540	57	103.834		

Table 4

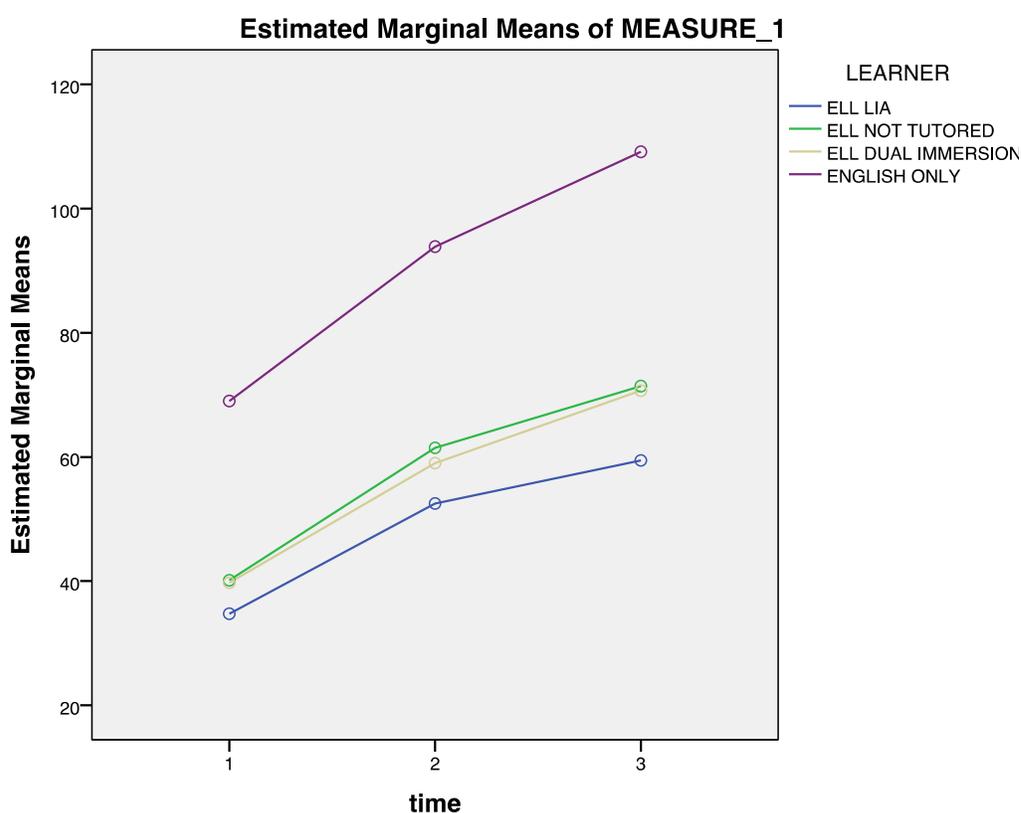
*Between-Subject Effects for All Learner Groups, All Grades, and Time for WCPM*

Source	Type III sum			F	Sig.
	of squares	df	Mean square		
Intercept	735560.867	1	735560.867	194.204	.000
LEARNER	47188.004	3	15729.335	4.153	.010
Error	215891.679	57	3787.573		

Table 5

*Dunnett Post Hoc for All Learner Groups, All Grades, and Time for WCPM, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	95%...	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	8.77	12.770	.835	-22.09	39.63
ELL dual immersion	ELL LIA	7.57	12.770	.885	-23.39	38.43
English only	ELL LIA	41.77	12.770	.005	10.91	72.63



*Figure 1.* Estimated marginal means of all learner groups, all grades, for WCPM.

One significant finding was that all groups improved over time. As students received instruction of one form or another, in first through fourth grade, whether ELL or Native English speakers, all made improvements in ORF.

Researchers also noted that Native English Speakers that were in general education and did not receive LIA tutoring began noticeably higher than all ELL groups. This difference demonstrates the gap between ELL students and Native English Speaking students. This study focused mainly on the progress the students made over the course of the year instead of focusing on the gap itself.

The second 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each learner group and time on ORF accuracy scores. Native English speakers were noted as beginning the year at a much higher level of accuracy than ELL students. In this case, Native English speaking students seemed to demonstrate a ceiling effect approaching 100% accuracy. For ELL students, no significant main effects or interactions were found. All groups seemed to improve at similar rates throughout the year. A Dunnett Post Hoc analysis was also performed. Results are found in Tables 6, 7, and 8, and Figure 2.

Table 6

*Results of Split-Plot ANOVA for All Learner Groups, All Grades, Time for Accuracy*

Source	Time	Type III sum			F	Sig.
		of squares	df	Mean square		
Time	Linear	3031.767	1	3031.767	47.031	.000
	Quadratic	366.349	1	366.349	12.286	.001
Time * learner	Linear	745.532	3	248.511	3.855	.014
	Quadratic	119.061	3	39.687	1.331	.273
Error (time)	Linear	3674.435	57	64.464		
	Quadratic	1699.595	57	29.817		

Table 7

*Between-Subject Effects for All Learner Groups, All Grades, and Time for Accuracy*

Source	Type III sum			F	Sig.
	of squares	df	Mean square		
Intercept	1313360.333	1	1313361.333	1547.658	.000
LEARNER	6788.909	3	2262.970	2.667	.056
Error	48370.894	57	848.612		

Table 8

*Dunnett Post Hoc for All Learner Groups, All Grades, and Time for Accuracy, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	95%...	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	7.98	6.045	.419	-6.63	22.59
ELL dual immersion	ELL LIA	3.83	6.045	.865	-10.78	18.43
English only	ELL LIA	16.36	6.045	.024	1.75	30.96

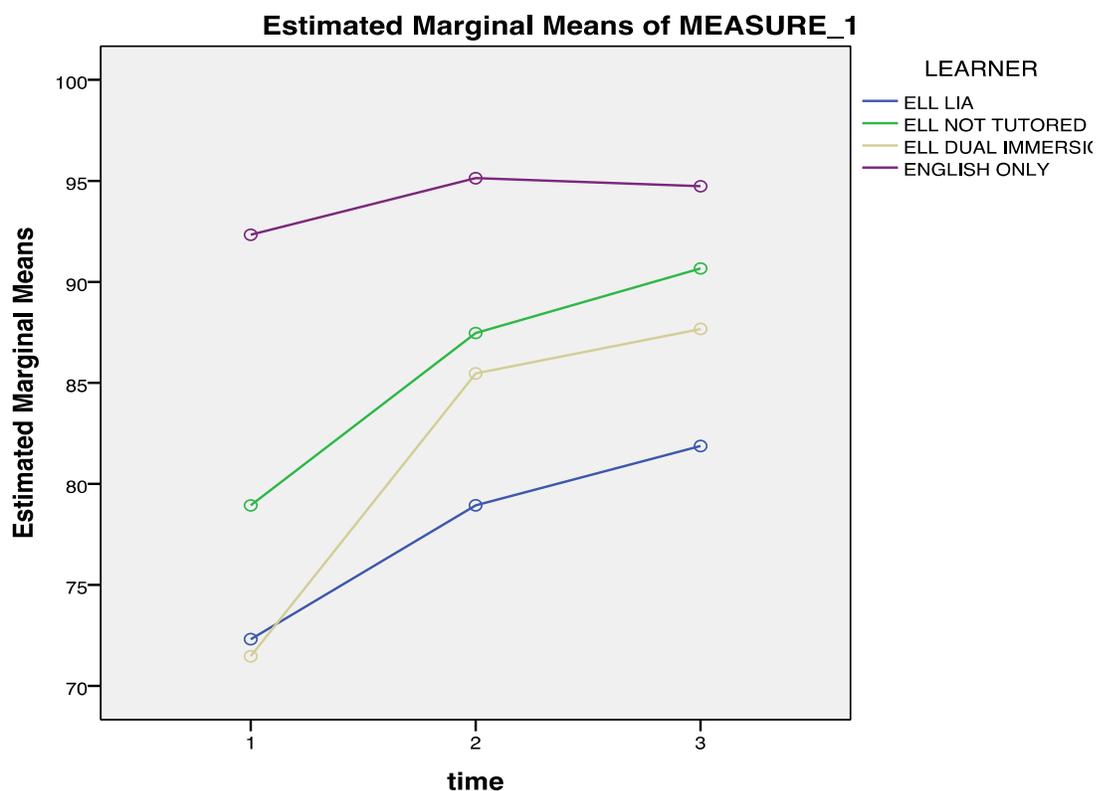


Figure 2. Estimated marginal means of all learner groups, all grades, for accuracy.

Next, researchers removed native English speaking students who received no tutoring or dual-immersion curriculum. The remaining three ELL groups (LIA tutored, non-tutored, and dual-immersion) were then analyzed.

The third 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each ELL learner group and time on ORF (WCPM) scores. Again, no significant main effects or interactions were found. All ELL groups showed improvement over time, but none improved at a significantly faster rate than any other group. A Dunnett Post Hoc analysis was also performed. Results are found in Tables 9, 10, and 11, and Figure 3.

Table 9

*Results of Split-Plot ANOVA for ELL Learner Groups, All Grades, and Time for WCPM*

Source	Time	Type III sum		Mean square	F	Sig.
		of squares	df			
time	Linear	19275.160	1	19275.160	109.930	.000
	Quadratic	756.413	1	756.413	14.103	.001
time * LEARNER	Linear	214.957	2	107.478	.613	.546
	Quadratic	21.046	2	10.523	.196	.823
Error(time)	Linear	7539.652	43	175.341		
	Quadratic	2306.273	43	53.634		

Table 10

*Between-Subject Effects for ELL Learner Groups, All Grades, and Time for WCPM*

Source	Type III sum		Mean square	F	Sig.
	of squares	df			
Intercept	407160.141	1	407160.141	112.807	.000
Learner	2122.357	2	1061.179	.294	.747
Error	155202.346	43	3609.357		

Table 11

*Dunnett Post Hoc for ELL Learner Groups, All Grades, and Time for WCPM, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	95%...	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	8.77	12.466	.708	-19.76	37.30
ELL dual immersion	ELL LIA	7.57	12.466	.771	-20.96	36.10

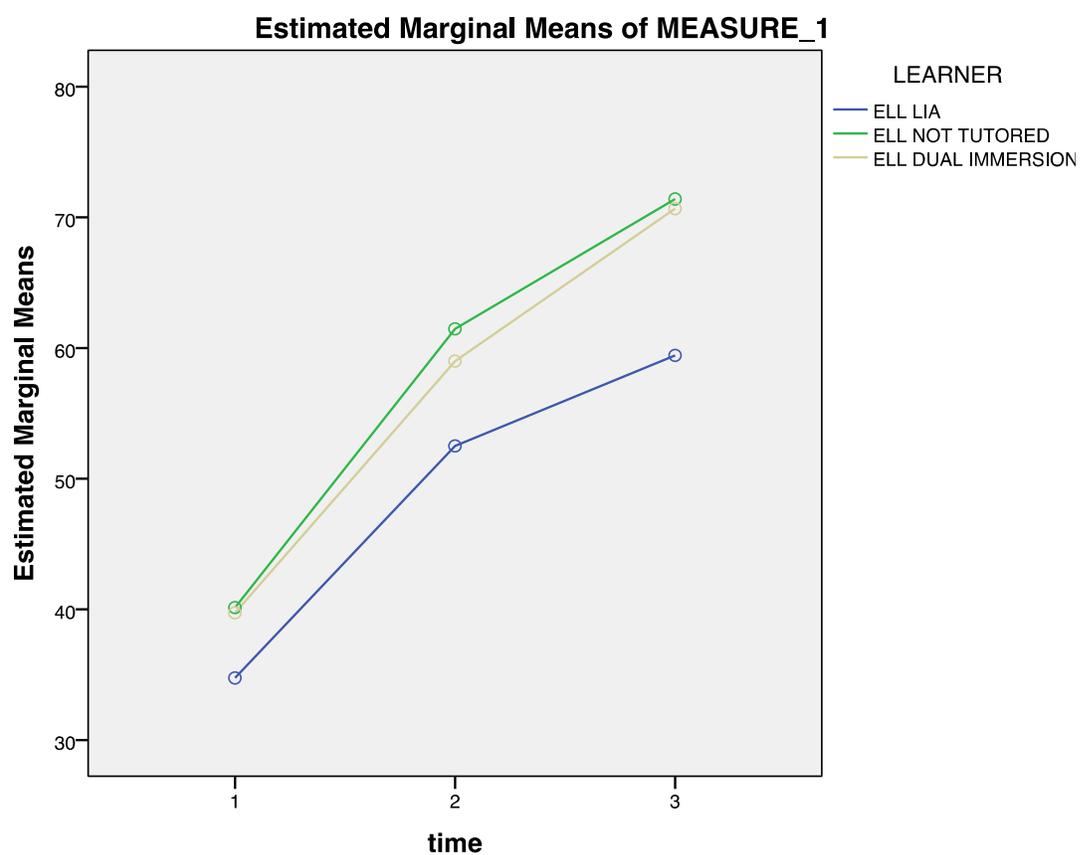


Figure 3. Estimated marginal means of ELL learner groups, all grades, for WCPM.

The fourth 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each ELL learner group and time on ORF Accuracy scores. Again, no significant main effects or interactions were found. All groups improved over time, but no significant differences were found between groups. A Dunnett Post Hoc analysis was also performed. Results are found in Table 12, 13, and 14, and Figure 4.

Table 12

*Results of Split-Plot ANOVA for ELL Learner Groups, All Grades, and Time for Accuracy*

Source	Time	Type III sum of squares	df	Mean square	F	Sig.
time	Linear	3589.628	1	3589.628	43.731	.000
	Quadratic	368.942	1	368.942	10.166	.003
time * learner	Linear	176.017	2	88.008	1.072	.351
	Quadratic	93.674	2	46.837	1.291	.286
Error(time)	Linear	3529.635	43	82.085		
	Quadratic	1560.528	43	36.291		

Table 13

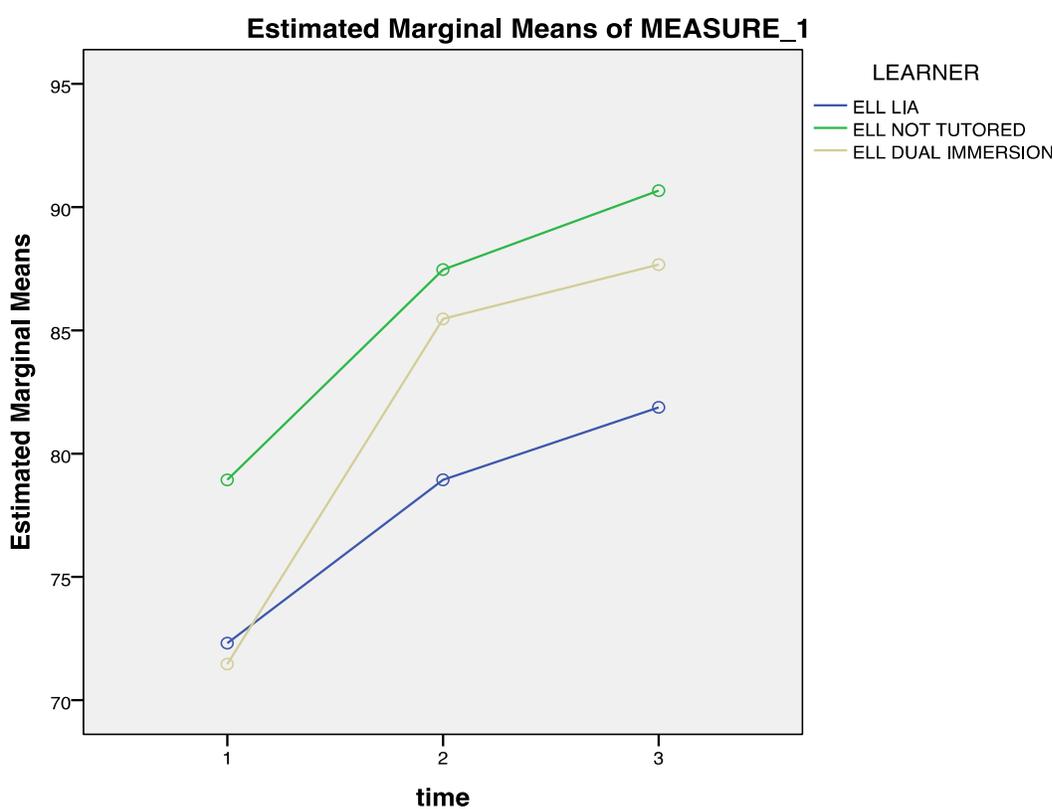
*Between-Subject Effects for ELL Learner Groups, All Grades, and Time for Accuracy*

Source	Type III sum of squares	df	Mean square	F	Sig.
Intercept	919010.712	1	919010.712	853.237	.000
LEARNER	1479.275	2	739.638	.687	.509
Error	46314.761	43	1077.087		

Table 14

*Dunnett Post Hoc for All Learner Groups, All Grades, and Time for Accuracy, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	95%...	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	7.98	6.810	.405	-7.61	23.57
ELL dual immersion	ELL LIA	3.83	6.810	.800	-11.76	19.41



*Figure 4. Estimated marginal means of ELL learner groups, all grades, for accuracy.*

In order to improve the consistency of the data set and remove the variable of grade, researchers ran the analysis using only second graders in the ELL learner groups. The number of second graders was the most complete and consistent grade across learner groups.

The fifth 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each ELL learner group, when only using second grade subjects, and time on ORF (WCPM) scores. Again, no significant main effects or interactions were found. All groups improved over time, but none improved at a faster rate than the others. Improvements were similar regardless of the intervention or lack thereof being put in place. A Dunnett Post Hoc analysis was also performed. Results are found in Table 15, 16, and 17, and Figure 5.

Table 15

*Results of Split-Plot ANOVA for ELL Learner Groups, Second Grade, and Time for WCPM*

Source	Time	Type III sum of squares	df	Mean square	F	Sig.
Time	Linear	9060.962	1	9060.962	71.279	.000
	Quadratic	236.623	1	236.623	2.750	.115
Time * learner	Linear	171.479	2	85.740	.674	.522
	Quadratic	173.782	2	86.891	1.010	.384
Error(time)	Linear	2288.140	18	127.119		
	Quadratic	1548.980	18	86.054		

Table 16

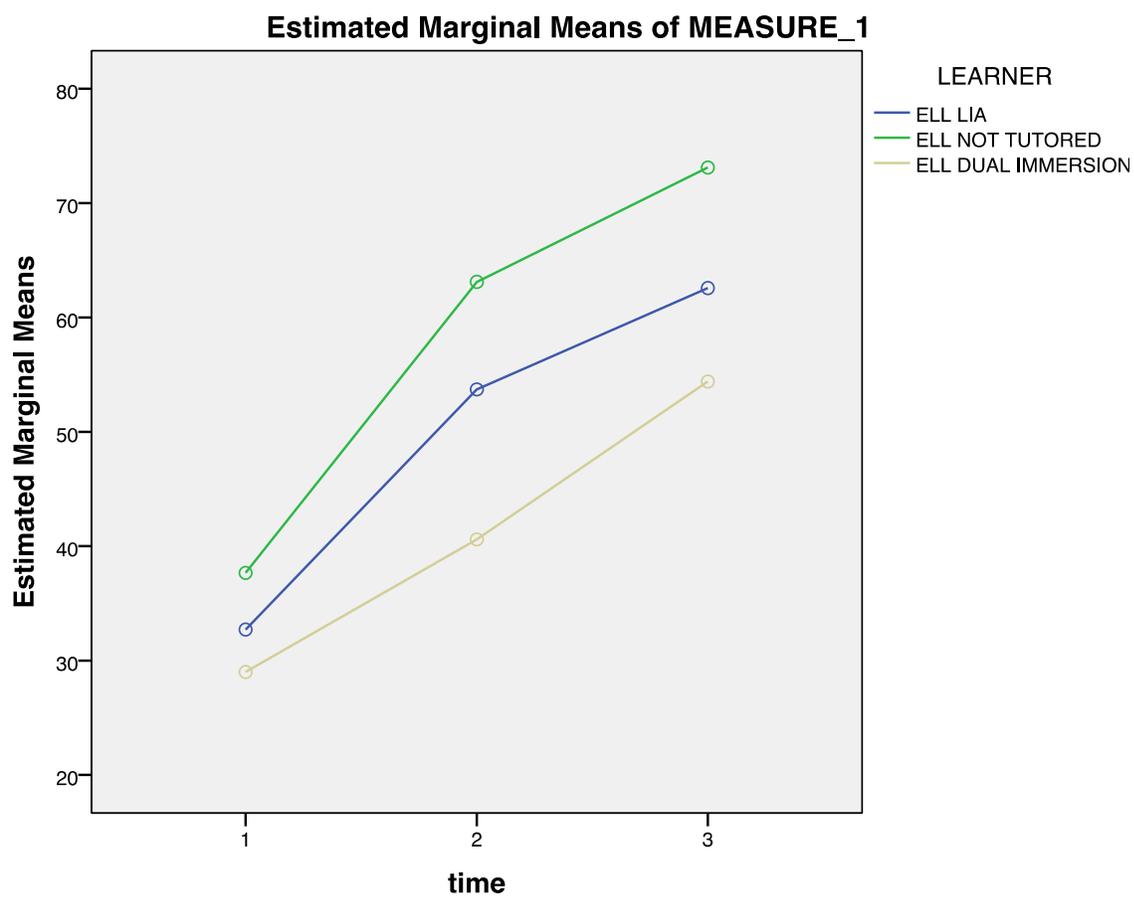
*Between-Subject Effects for ELL Learner Groups, Second Grade, and Time for WCPM*

Source	Type III sum of squares	df	Mean square	F	Sig.
Intercept	146639.974	1	146639.974	52.048	.000
LEARNER	2744.466	2	1372.233	.487	.622
Error	50713.630	18	2817.424		

Table 17

*Dunnett Post Hoc for ELL Learner Groups, Second Grade, and Time for WCPM, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	Dunnett t (2-sided) 95%	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	8.30	15.444	.816	-28.78	45.37
ELL dual immersion	ELL LIA	-8.33	17.944	.858	-51.41	34.75



*Figure 5. Estimated marginal means of ELL learner groups, second grade, for WCPM.*

The sixth 3x3 Split-Plot ANOVA was calculated to examine the effects of the type of instruction received for each ELL learner groups, only using second grade subject data, and time on ORF Accuracy scores. Again, no significant main effects or interactions were found, though second grade ELL students in dual-immersion approached significance on the Dunnett Post Hoc analysis that was also performed (.990). This was the closest result to approach significance other than time in the study. ELL students who received LIA tutoring improved the least, though not significantly lower. Results are found in Tables 18, 19, and 20, and Figure 6.

Table 18

*Results of Split-Plot ANOVA for ELL Learner Groups, Second Grade, and Time for Accuracy*

Source	Time	Type III sum of squares	df	Mean square	F	Sig.
Time	Linear	2678.490	1	2678.490	22.706	.000
	Quadratic	201.956	1	201.956	4.320	.052
Time * learner	Linear	206.305	2	103.152	.874	.434
	Quadratic	31.687	2	15.843	.339	.717
Error(time)	Linear	2123.314	18	117.962		
	Quadratic	841.424	18	46.746		

Table 19

*Between-Subject Effects for ELL Learner Groups, Second Grade, and Time for Accuracy*

Source	Type III sum of squares	df	Mean square	F	Sig.
Intercept	387647.028	1	387647.028	388.107	.000
Learner	647.247	2	323.623	.324	.727
Error	17978.690	18	998.816		

Table 20

*Dunnett Post Hoc for all Learner Groups, Second Grade, and Time for Accuracy, Upper and Lower Bounds*

(I) Learner	(J) Learner	Mean difference (I-J)	Std. error	Sig.	95%...	
					Lower bound	Upper bound
ELL not tutored	ELL LIA	5.88	9.195	.752	-16.19	27.96
ELL dual immersion	ELL LIA	-1.26	10.684	.990	-26.91	24.39

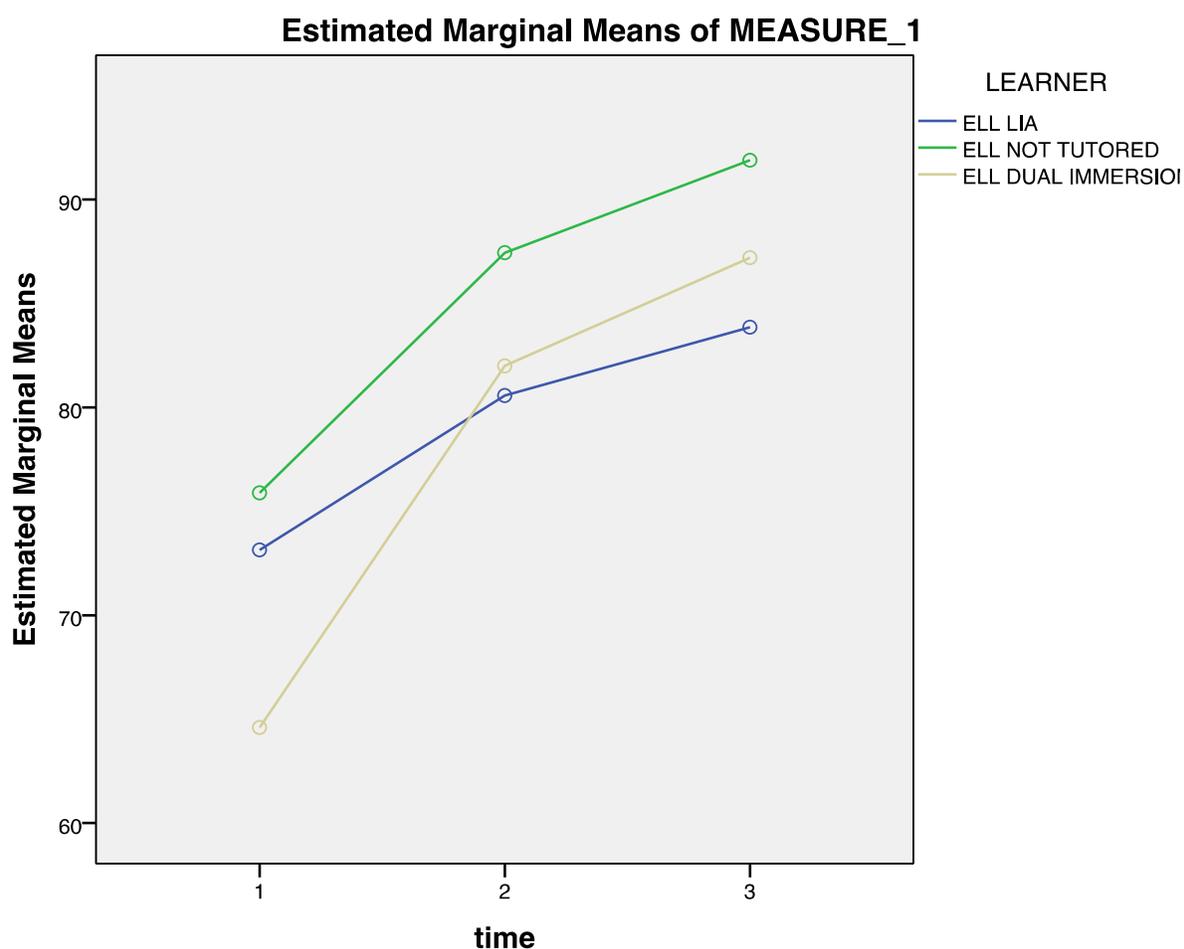


Figure 6. Estimated marginal means of ELL learner groups, second grade, for accuracy.

In summary, no significant results were found between any of the different learning groups for either accuracy or WCPM scores during all six different analyses. All groups improved from the beginning of year (BOY DIBELS) testing to the End of year (EOY DIBELS) testing. None of the results provide evidence that LIA tutoring, dual-immersion instruction, or only receiving general education instruction were more or less effective methods of helping ELL students improve on ORF and accuracy as measured by the DIBELS ORF measure.

## Chapter 5: Discussion

The results of this study answered the research questions proposed at the onset of the study. First, does LIA peer tutoring increase the mean rate of improvement of elementary school Latino ELL tutees at a higher rate than the mean rate of improvement for non-tutored ELL peers on ORF measures? Results showed no evidence that LIA tutoring improves the mean rate of improvement of Latino ELL students on ORF measures. Tutored students improved over time, as did all other groups, but it was no more effective or less effective.

Second, does LIA peer tutoring increase the mean rate of improvement of elementary school Latino ELL tutees compared to the mean rate of improvement for non-tutored native English speaking peers on ORF measures? The results of this study show that ELL students who received LIA tutoring did not improve at a rate that was significantly better than their native English-speaking peers who did not receive tutoring.

The third research question asks, Do LIA tutoring data show a significant effect that justifies LIA tutoring and the time that students are being pulled from their general classroom instruction? This question was answered by comparing the mean improvement rates of ELL students who did receive LIA tutoring with other ELL students who only receive general education instruction in English. The study shows that students who are not being taken from their classroom to receive tutoring improved on ORF measures at statistically similar rates than students who did receive tutoring.

The final question was in regards to which ELL intervention was more effective for students, Spanish and English dual-immersion programs or LIA tutoring. Results show that ELL students in Spanish and English dual-immersion programs improved on English ORF measures

at statistically similar rates to students who received all English curriculum and LIA tutoring. Spanish ORF was not measured as part of this study.

Overall, the data showed that all groups improved in their reading, but that no group improved at a significantly faster or slower rate than any other group. DIBELS ORF scores in both accuracy and WCPM showed no significant differences in the mean rate of improvement. There are a many different ways that we can look at these findings. I will discuss several that most concern this study, the LIA tutoring program, and the school district's dual-immersion program.

The LIA tutoring gave ELL students no significant advantage in ORF improvement over their ELL peers who received no tutoring. For elementary school teachers and administrators deciding on whether or not to allow the tutors into the school to take their students away from their licensed teachers to spend time with a secondary student, they should look at the cost to benefits for the student. The student is very likely receiving lower quality instruction than he or she would receive in the classroom with no significant benefits. If a particular student shows benefits, then tutoring could be worth the time. But this study shows that for the majority of the students there will be no significant benefit.

On the other hand, there are more reasons for having an ELL elementary school student visit with the tutors. Some possible benefits other than reading could include the secondary student being a role model to the younger student, the secondary student possibly being a second language tutor, and as a service opportunity for the secondary student. School personnel would need to assess their priorities and decide whether these possible benefits are enough to justify continuing the program in their schools. More research would need to be done on the role model effects of tutors on tutees.

The dual-immersion program at the elementary school showed no significant advantage over the other groups in ORF scores. These students made similar gains in reading in English. This can actually be seen as an excellent statistic. It is important to remember that the ELL students in the dual-immersion classroom are only receiving a half-day of English instruction. They are able to make the same gains while receiving Spanish instruction as well. The Spanish instruction is strengthening their native language while not forfeiting gains in English, similar to findings in the extant literature (Freeman & Freeman, 2006; Vaughn et al., 2006). For parents, teachers, and administrators worried that their student is not going to improve in English ORF as well as other students because of the Spanish instruction, the evidence does not support this for this group of students as a whole.

### **Limitations**

Some limitations that should be considered with this study include that the sample size was small. Larger school districts in the area that implemented the LIA program did not collect the data necessary to complete the study. The Utah school district that participated in this study had exceptional DIBELS data collection methods for every student in first through sixth grade in the district. The district was gracious enough to allow us to use these data. But it is a smaller district. The number of students that were both ELL and received LIA tutoring was fewer than ideal. The study became more of a pilot study because of this and should be viewed as such when drawing conclusions from the research.

The small sample sizes also made it impossible to have each group randomly selected. The only group large enough to provide a randomized sample was the Native English speaking non-tutored group of students. All other groups were composed of every single student that could be found matching the criteria.

Another limitation was the lack of consistency between the numbers of students in each grade in each group. Some groups had 10 students in a grade, but only 2 in another grade. We tried to correct for this first by putting all grade levels together, but as students increase in grade the rate of improvement typically declines for WPM scores and accuracy scores hit a natural ceiling at or slightly below 100%. We then tried to correct this by only measuring the second graders in each group, the most consistent grade level across groups. Unfortunately, this made the sample sizes even smaller. If larger sample sizes were obtained, the results could be different.

### **Future Research**

As mentioned, one future study could simply focus on running the same data with larger, randomized sample sizes. If large enough samples can be obtained then the data would be more valid. This is a difficult task, given that each LIA program does tutoring in different ways. Also, not all districts collect DIBELS or similar data on every student in the district. Finding a district with enough students and sufficient data to analyze may be a challenge.

Another study could focus on other areas of the LIA tutoring experience. Tutors are meant to serve the students with the goal of helping the secondary students become more connected and engaged to their own school and the elementary student to receive help in reading. LIA also wants the secondary student to act as a role model for the younger student. These factors could be defined and measured in order to determine the effectiveness of LIA tutoring in those areas. Providing evidence that the tutors have a significant influence on the tutees is essential when justifying the amount of time the students are missing in their classrooms, the secondary tutors and elementary school students alike.

More research can be done regarding growth in other academic and social areas for children in dual-immersion classrooms. Do students in dual-immersion have better Spanish ORF scores than other ELL students receiving only English instruction? While this study only showed that dual-immersion students did not fall behind in English ORF, it would be important to research whether the Spanish instruction effectively improves student Spanish ORF.

A more qualitative line of research could be done to look more into the face validity of the LIA tutoring program. Do teachers see the program as a useful way of helping their students? Do the students like the tutoring program? Do the teachers, students, parents, or tutors see positive effects from the tutor and tutee interaction? How does each group view ORF and its face validity in helping students read?

Dual-immersion instruction offers possible research as well (Vaughn et al., 2006). Do dual-immersion students have better Spanish literacy skills than ELL students with no Spanish reading instruction at school? How does LIA tutoring effect ELL Spanish reading compared to dual-immersion? Tutoring ELL students in Spanish Literacy could be a new angle for the LIA program to approach tutoring elementary students.

Further studies could also look at how consistently LIA tutoring programs are implemented from district to district. While performing this study, researchers noted that each district was different in application of LIA tutoring, including, the amount of time that was spent tutoring during each visit, training of tutors, and how many days a week the students were tutored. Data from several LIA programs could be compared to see how universal and consistent the LIA program is across Utah and other states. It seemed that each LIA program was doing something different. This would be important for school districts to carefully define their

expectations for both tutors and tutees when they are choosing whether to implement LIA in their district.

Further research could look at how qualified the LIA program instructors are to carry out the demands of the position. Are they qualified to be training secondary students to use the cross-age tutoring program? How familiar are they with implementing a reading program and assessing its effectiveness? Does LIA need higher qualification criteria for program instructors than what they currently have?

### **Conclusion**

Comparable to existing research findings which utilized peer tutoring with Spanish speaking students (Denton, 2004), this study did not find significant effects in overall reading progress to indicate improvement over those students who did not receive peer tutoring. In the current study, LIA cross-age peer tutoring as an intervention for ELL elementary student reading was not supported by evidence gathered using DIBELS ORF WCPM and accuracy scores when compared to ELL students in general education that did not receive tutoring or compared to ELL students in a dual-immersion program. While students in all groups improved in the ORF scores over the course of the school year, no group outpaced the others in improvements. Schools considering LIA tutors as an intervention for their ELL students should consider these results and other factors when making their decision. Parents should consider whether this program is worth the time their child would spend with a secondary school tutor instead of with a licensed teacher. More research is needed with bigger sample sizes and looking at other factors of the tutoring program to provide more evidence about the effectiveness of the LIA tutoring program compared to other options available for ELL students for literacy instruction.

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