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A Seven-year Analysis of EL Achievement at a Minnesota High School

Lisa M. Perbix
SCSU

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A Seven-year Analysis of EL Achievement at a Minnesota High School

by

Lisa Perbix

A Thesis
Submitted to the Graduate Faculty of
St. Cloud State University
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Master of Arts in
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Thesis Committee:
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Abstract

This paper reports on a study that analyzed the effectiveness of a district-wide training effort to help close the achievement gap between EL and mainstream students who were in graduating classes from 2009 through 2015. Existing data from 64 participants at a high school was collected to determine if there have been any positive or negative trends over the past 7 years in the academic performance of these high school English Learner (EL) students. Information such as grade point average at graduation, class graduation rates and reading information, specific to vocabulary and reading Lexile level, were collected from standardized test scores to determine these trends. Although results of this study did not show a significant improvement in academic achievement during the seven years analyzed, the overall EL program support and the partnerships between mainstream and EL colleagues grew substantially in this district.
# Table of Contents

List of Tables .......................................................................................................................... 5

Chapter

1. Introduction .......................................................................................................................... 6
   EL Accountability .................................................................................................................... 7
   Background and Need for the Study ...................................................................................... 10
   Limitations of the Study ......................................................................................................... 11

2. Literature Review ............................................................................................................... 12
   Educational Reform in the USA ............................................................................................ 12
   Educational Reform for ELs .................................................................................................... 13
   The Limitations and Challenges of High Stakes Testing for ELs ........................................ 15
   Grade Point Averages and Graduation Rates of EL Students ........................................... 15
   Academic English Vocabulary Used in High Schools ......................................................... 16
   NWEA/MAP Test Background .............................................................................................. 19
   Summary ................................................................................................................................. 20
   Research Questions .............................................................................................................. 20

3. Methodology ....................................................................................................................... 21
   Data Collection ...................................................................................................................... 21
   Procedure ............................................................................................................................... 25
   Data Analysis ........................................................................................................................ 27
   Summary ................................................................................................................................. 29
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Results</td>
<td>30</td>
</tr>
<tr>
<td>5. Conclusions</td>
<td>39</td>
</tr>
<tr>
<td>Research Questions</td>
<td>39</td>
</tr>
<tr>
<td>Findings</td>
<td>41</td>
</tr>
<tr>
<td>Conclusion</td>
<td>43</td>
</tr>
<tr>
<td>Further Research</td>
<td>43</td>
</tr>
<tr>
<td>References</td>
<td>45</td>
</tr>
<tr>
<td>Appendix</td>
<td>49</td>
</tr>
</tbody>
</table>
## List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Final GPA, All Students</td>
<td>31</td>
</tr>
<tr>
<td>2. Group Statistics of GPA before and after 2012 Training</td>
<td>31</td>
</tr>
<tr>
<td>3. Final GPA t-test</td>
<td>32</td>
</tr>
<tr>
<td>4. Average Graduation Rates Group A vs. Group B</td>
<td>33</td>
</tr>
<tr>
<td>5. Average EL Graduation Rates 7-year Trend</td>
<td>33</td>
</tr>
<tr>
<td>6. 7-year Graduation Trend per MN Report Card</td>
<td>34</td>
</tr>
<tr>
<td>7. Vocabulary Scores for All EL Students</td>
<td>35</td>
</tr>
<tr>
<td>8. Vocabulary Groups Statistics before and after Training</td>
<td>36</td>
</tr>
<tr>
<td>9. Vocabulary t-test</td>
<td>36</td>
</tr>
<tr>
<td>10. Below Grade Level Reading Lexile</td>
<td>37</td>
</tr>
<tr>
<td>11. Reading Lexile Level below Grade Level-before Training vs. after Training</td>
<td>37</td>
</tr>
<tr>
<td>12. Reading Lexile Level below Grade Level t-test</td>
<td>38</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction

A public high school in a northwest suburb of Minneapolis has been experiencing growth in the English Language Learner population. Though it is a much smaller EL population relative to other parts of Minnesota, the district’s English Learner student count continues to expand. In 1998, the school district welcomed its first two EL students and began a new chapter by hiring its first EL teacher. Currently the number of English Learner (EL) students in the district has grown to 135 out of approximately 5500 total students district-wide, which is approximately 2.45% of the total population. At the high school alone, the student count for the 2015-2016 school year is approximately 1,800 students, 35-40 of which will qualify as Limited English Proficient (LEP) students.

The term ELL, English Language Learner is typically used to refer to students in K-12 (Shore & Sabatini, 2009). I will use the term EL, defined by the Minnesota Department of Education, as a student whose home language is not American English and who shows a need for English Learner instruction to gain skills in academic English, the language needed for success in school (Minnesota Department of Education, 2015a).

As with many EL programs in the United States, Minnesota EL students continue to be out-performed by mainstream students when it comes to graduation rates, grade point averages (GPA’s) and standardized tests. National and state data demonstrate a substantial gap between academic performances of EL students compared with native speakers of English (Abedi, 2008; Bassiri & Allen, 2012). This performance gap is no different with the high school students in this district.
EL Accountability

The guidelines of No Child Left Behind (NCLB) require all students to make adequate yearly progress (AYP) in mathematics and reading (U.S. Department of Education, 2009). AYP is evaluated using nine different groups: all students, American Indians, Asians, Blacks, Hispanics, Whites, limited English proficient, special education, and students receiving free and reduced lunch. What constitutes AYP and the tools used to calculate and assess it is different in each individual state. Each state chooses a set of assessments and defines adequate progress. If the school does not meet the state’s definition, they do not make AYP (U.S. Department of Education, 2004).

The district where this study takes place is currently held accountable by the Minnesota Comprehensive Assessment Series III standardized tests (MCA IIIs). The MCA IIIs assess all students in grades 3-8, as well as grade 10, in reading; grades 3-8 and 11 in mathematics; and grades 5, 8, and 10 in science (Minnesota Department of Education, 2010a). The AYP is calculated by a point system and there must be 95% district participation in the assessments. If a student partially meets standards, his/her respective school earns half a point. If a student meets standards, one point is earned. The points earned by the school are then compared to statewide targets to determine if the school is making AYP (MN Department of Education, 2010b).

NWEA/ MAP test. Many schools have adopted the Northwest Evaluation Association (NWEA) test to help predict student achievement on the MCAs and focus teacher instruction on specific student skills. At the HS where this study takes place, the students take the test in winter of the freshman and sophomore years and are given a Rasch Unit (RIT) score.
Teachers are given the RIT score norm for each grade level, the score in which each child needs to achieve to be at grade level. Because the NWEA MAP tests are state-aligned tests, in theory, correlation to the MCAs should be strong (Dessoff, 2008). However, ELs in particular are held to unfair standards. Time in country, language proficiency, and educational backgrounds are all major factors of EL success (Collier, 1987; Droop & Verhoeven, 2003; Gottardo & Mueller, 2009; Shore & Sabatini, 2009).

**ACCESS test.** NCLB attempts to address these concerns. It requires all states to annually review the achievement of its ELs. There are three areas in which ELs must improve and these are known as annual measurable achievement objectives (AMAO) and it is done through a language test designed for English Learners. According the Minnesota Department of Education, AMAO 1 focuses on making progress and requires that “Progress in English language acquisition measured by annual increases in the percentage of students making progress in learning English, based on the annual state English language proficiency assessment” (Minnesota Department of Education, 2010b). AMAO 2 focuses on proficiency and says “Attainment of English language proficiency measured by the percentage of students meeting state criteria for English language proficiency, as measured on the annual state English language proficiency assessment” (Minnesota Department of Education, 2010b). Finally, AMAO 3 requires that “Academic achievement and success as measured by Adequate Yearly Progress (AYP) targets for the EL subgroup (under Title I) in meeting grade-level academic achievement standards in English Language Arts (Reading) and Mathematics, as measured on the annual state content assessments and gains in attendance and graduation for ELs” (Minnesota Department of Education, 2010b).
The Accessing Comprehension and Communication in English State-to-State (ACCESS) test assesses ELs in grades K-12 in the four language domains of reading, writing, speaking and listening. It is on these tests only that ELs are being compared to EL peers to determine appropriate growth. The tests have been written specifically for ELs and measure their progress in comparison to other ELs. However, the State of Minnesota does not consider an EL’s score on the ACCESS test to be substantial enough to measure ELs progress. ELs academic progress is also measured on the state tests, the MCA IIIs in reading and math. The MCA IIIs assess the academic achievement of all students and the set norms and expectations are directed towards Native English Speakers (NES), which creates a disadvantage for ELs, who are by definition still learning the English language (Minnesota Department of Education, 2010b).

Depending on students’ results, a district can be considered as at/above target for AMAO, below target for AMAO, or of having a group cell too small to be applicable for AMAO (less than 100 EL students district wide). Districts can be labeled as In Need of Improvement (INOI) status if they do not make AMAO, resulting in parent notification, supplemental educational service, corrective action or preparation for restructuring (Minnesota Department of Education, 2010b).

In a study using data from several school districts in different states, Abedi, Leon, and Mirocha (2003) found that the achievement gap between EL and non-EL students is widest in reading. After working with the high school EL students in this district, it is apparent that our students’ reading abilities and assessment scores have also declined as they grow into middle
and high school, which is another reason why focus will be with the reading scores on their assessments tests.

**Background and Need for the Study**

Without significant gains in vocabulary and reading ability, the gap between EL students’ current vocabulary/reading level and their goal of grade-level reading comprehension continues to widen. Books and academic reading material are given Lexile levels, which determine what grade level the reading material is at. Lexile reader measures and Lexile text measures both use a scale and can be used to tell the reader what range is most appropriate along with showing growth of a reader's ability (MetaMetrics, 2015). By the time some ELs are seniors, the vocabulary and reading gap may be 5 or more years, which will create additional challenges for post-secondary education. In college, the literacy requirements quickly become more advanced than what was required in high school; students are expected to read texts that are beyond their reading level and then summarize, synthesize, and/or perform critical analysis. This challenge, then, is especially concerning, given that the single biggest factor in predicting academic success for second language learners is vocabulary (Saville-Troike, 1984).

In an effort to close the achievement gap, during the 2010/2011 school-year, the school district that is the subject of this study conducted a comprehensive needs assessment of its EL program. The general results of this assessment at the high school level uncovered an overlying need for additional academic vocabulary and language building within all core content areas. The assessment was followed by a 2-year training program which comprised of EL teachers in collaboration with select mainstream teachers to help with the growing need to
better prepare our EL population with academic rigor and to narrow the achievement gap in the district. At the high school level, academic language was addressed and incorporation of both content objectives and language objectives to compliment the mainstream curriculum within the disciplines of English, Math, Science, Social Studies, Business and Physical Education (re-word per Ed) were created.

Over a 2-year period (fall of 2011 to spring of 2013), mainstream teachers volunteered and were selected to attend multiple trainings during the year where they created language objectives to coordinate with their content objectives. Language objectives need to include the academic vocabulary needed to support the content vocabulary. An example of a language objective would be to **Analyze the effects of the Treaty of Versailles and how it affected the origins of WWII.** The student would need to know what it means to analyze along with the difference between effect and affect.

**Limitations of the Study**

- The sample size for this micro-study is small, due to the limited number of EL students at this high-school (EL graduating classes are typically 6-12 students).
- Because ELs are a very fluid group, spontaneously moving away or exiting out of the program as their English progresses, it is difficult to determine to what extent each EL in this study received instruction from the mainstream teachers who had EL training.
Chapter 2: Literature Review

The purpose of this study is to determine if the EL teacher training administered district wide had an impact on EL academic success. The ultimate goal is to narrow the achievement gap between the performance of EL students and mainstream students in this district. The elements analyzed to determine if this gap narrowed includes student grade point averages, graduation rates and the reading and vocabulary performance on a standardized test administered in this district.

Educational Reform in the USA

Education is necessary for the growth and success of our country. Our Founding Fathers expressed the importance of an education for ALL, regardless of being rich or poor (U.S. Department of Education 2004). With this concept of public education in the U.S., the task of educating its people has been the responsibility of each state; however because of its growing importance, the federal government decided to step in and take a larger role with this responsibility. In 1965, the Elementary and Secondary Education Act (ESEA) was approved to help the war on poverty (U.S. Department of Education, 2004) and to increase the educational opportunities for children from lower income families. The ESEA went through several revisions over the decades. In 2001, the George W. Bush administration revised the ESEA act once again and called it The No Child Left Behind (NCLB) Act of 2001.

Many educators and students around the US have felt the impact of the educational reform act of 2001. The NCLB covers a number of programs, and one of the more significant ones is the requirement that each state develop ‘challenging’ academic standards. These states are required to administer assessment tests annually from grades 3-11 to determine if all
students are ‘proficient’ in these standards and have shown grade level mastery or knowledge with academic content. Another significant part of the NCLB is that schools are responsible to make ‘adequate yearly progress’ or AYP (including subgroups such as EL).

The NCLB Act increased the requirements that all children are assessed annually to determine if they are proficient. During the school year of 2014-2015 (the last year of this study) the state testing requirements for Minnesota are transitioning to the American College Testing (ACT) suite of standardized tests. However, based on the 7-year sample of 12th grade EL students in this study (from the spring of 2009 to the spring 2015) in order to graduate, the MN Department of Education and/or this school district being analyzed require every high school student to test in the following:

- Minnesota Comprehensive Assessments (MCAs) state mandated writing (9th grade)
- Minnesota Comprehensive Assessments (MCAs) state mandated reading (10th grade)
- Minnesota Comprehensive Assessments (MCAs) state mandated science (10th grade)
- Minnesota Comprehensive Assessments (MCAs) state mandated math (11th grade)
- ACT PLAN (10th grade) state offered (but not mandated) standardized test in reading, math, English and science informing students and parents of academic progress, interests and career plans and a precursor for the ACT test.
- MAP/NWEA (9th and 10th grade) district purchased, computer adapted tests with national measures in reading and math.

**Educational Reform for ELs**

A number of programs were developed under the NCLB Act of 2001, including Title III, which is targeted to help Limited English Proficient (LEP) children and immigrant youth in the United States (Cook, 2012). In the past, English language learners had been instructed toward a level of English proficiency before academic content was introduced; however, literature on this subject shows that ELs cannot wait for language skills to fully develop
before these students are taught the critical academic content required of all students to succeed in our public schools (Cook, Linquanti, Chinen, & Jung, 2012). Title III states that LEP students must not only attain English proficiency, but simultaneously meet the same academic standards as their English-speaking peers in all content areas (Kato et al., 2004). In other words, Title III requires states to develop English-language-proficiency (ELP) standards aligned with the language needed for both social skills in the English language and also the academic language needs for the content standards, used by the mainstream (U.S. Department of Education, 2009). Title III requires states to assess each EL’s ELP annually and also requires each state to set annual measurable achievement objectives (AMAO), of which all three levels of AMAO must be met. Even if a school district makes two of the three AMAO requirements, they still do not ‘make AMAO’, or pass the AMAO accountability law.

Each state is responsible for developing their own English Language Proficiency standards. In 2010 Minnesota became the 23rd state to join the World Class Instructional Design and Assessment (WIDA) consortium (edweek.org/2010), which currently includes 37 states (WIDA 2015). WIDA focuses on the importance of academic language and how to support language learners. In 2011-2012 was the first time that all Minnesota school districts administered the ACCESS test (Assessing Comprehension and Communication in English State-to-State) for English Language Learners. ACCESS is an English language proficiency assessment given to Kindergarten through 12th graders who have been identified as limited English proficient (LEP) and is given annually in WIDA member states to assess students’ progress in acquiring academic English (WIDA 2015).
The Limitations and Challenges of High Stakes Testing for ELs

Most educated American adults would agree that they would like to see every child in America, regardless of income, ethnicity or background, achieve high standards in school. However, by assessing LEP students in these high stake standardized tests (which are often culturally biased toward a European culture) and holding school districts accountable for a proficiency level equal to their mainstream peers proves to be a challenge. Multiple research findings consistently show how EL students perform substantially lower than their native English-speaking peers (Abedi & Levine, 2013). Many have debated over the years that English language learners should be excluded from the regular state tests, at least until they have enough language proficiency to meaningfully participate (Wright, 2007). These students face a two-way challenge; learning a new language while simultaneously mastering content in the language they may be struggling to learn. Given that the high stake tests being used are linguistically complex and administered in a language they are learning, it is no surprise that ELs will typically perform worse on the tests used to comply with the mandates of NCLB (Menken, 2010).

Grade Point Averages and Graduation Rates of EL Students

As with testing results, the grade point average (GPA) and graduation rates among EL students have historically reflected lower performance. What are they? Give research? The NCLB act addresses graduation rates along with test-score performance when determining whether a school or district made AYP (Lloyd, 2012). However, because of the discrepancy between the different states and how they reported graduation rates, the U.S. Department of Education Blog in 2008 used new regulations that required all states to transition toward an
even, cohort-based method for calculating graduation rates and to use that rate for federal accountability purposes (Lloyd, 2012).

The 2008 policies also required states to report disaggregated cohort graduation rates for specific student groups defined on the basis of race and ethnicity, poverty, disability status, and English-language proficiency. As of 2012, thirty-seven states have publicly reported rates for each of these mandated groups; seven states have released results only in the aggregate. In addition, 29 states have posted detailed results by gender and 14 states have disaggregated graduation rates for other groups (Lloyd, 2012).

In 2015, the National Center for Education Statistics released a report regarding the national on-time graduation rate for school year 2012-2013. These on-time graduation rates provide a measure of how many students successfully complete high school in four years with a regular high school diploma (Zubrzycki, 2012). According to the statistics published on the Minnesota Department of Education website, for the 2012-2013 school year, Minnesota’s graduation rate was at 78%. The following year in 2014, the state of Minnesota’s graduation rate rose to 81.2 with its announced goal to reach 90% by the year 2020.

The graduation rates in the district studied are higher than those of the state of Minnesota. In 2010, the high school’s graduation rate was just under 94%. Several years later in 2014 this district reported a graduation rate of 98%, topping the state average margin by nearly 20% (Minnesota Department of Education, 2015b).

**Academic English Vocabulary Used in High Schools**

One of the first, and the most significant, researchers to make a distinction between academic and everyday language is Jim Cummins (Enright, 2011). For language learners,
academic language and vocabulary refers to “the language of schooling…distinct from language used outside of school, requires formal instruction, and presents unique challenges for students who are learning it while they are still developing a second language” (Enright, 2011, p. 83).

Cummins first introduced the theory of Basic Interpersonal Communication (BICS) and Cognitive Academic Language Proficiency (CALP) in 1979. BICS is considered social English, usually developing in 2 years (1979 and 1981). CALP is the language needed to be successful in academics: reading, writing, speaking, and listening. Various factors can affect the amount of time it takes to develop CALP: age of arrival, native language skills, years of English instruction and proficiency level (Collier, 1987). Cummins stated that 5 to 7 years is usually the minimum it takes for ELs to catch up to grade level norms (Cummins, 1999). An additional variable to the acquisition of language learning is appropriate education. A student is able to reach grade level norms by the previously noted items only if a student has been receiving appropriate education; this ideal time frame of CALP development is not always realistic. Another important factor to developing CALP is how much previous education they have had in their home language and at what age they left their native country.

Cummins’ theory does not necessarily apply to all students. It is possible that high levels of CALP can precede fluency in BICS. He additionally states that BICS can reach a ceiling in development, whereas CALP will continue to develop in ELs and native speakers alike, for their entire educational career (1999). However, it is important to realize that many ELs will take longer periods of time to develop CALP. While their BICS may appear fluent, it is not a determiner of their level of CALP.
There is a wide range of years that have been determined as the amount of time it takes for a student to be academically successful in English (Collier, 1987; Collier & Thomas, 2007; Cummins, 1999). Initially Collier found it took on average four to eight years for an EL to develop academic English skills and be performing at grade level (1987). Collier and Thomas (2007) later determined that success for an EL was greatly dependent upon the type of EL services he/she had been receiving throughout his/her education. Collier and Thomas (2007) gathered statistics on ELs achievement in grades K-12 from 1985-2007. It was clear that students receiving academic instruction in their native languages, while simultaneously learning English, were more likely to close the achievement gap (Collier & Thomas, 2007). However, students solely receiving instruction solely in English, whether an ESL pull-out model or EL taught through content (sheltered instruction was also in this category), were less likely to close the achievement gap (Collier & Thomas, 2007). Typical achievement was defined as a student graduating high school at the 50th percentile. ELs receiving English instruction through a pull-out model on average graduated high school at the 11th percentile. ELs that had received English instruction through content or sheltered instruction on average graduated high school at the 22nd percentile. In great contrast, ELs that had received two-way bilingual classroom instruction closed the achievement gap, 100% graduated in the 50th percentile (Collier & Thomas, 2007). These statistics show how ELs achievement of English language proficiency can greatly differ from each other. There is not a set of guidelines that can tell educators how long it will take an EL to reach grade level.

It is important to point out how high of an expectation it is for ELs to eliminate the achievement gap in a short period of time. For ELs entering school with no prior English, the
first 2 to 3 years are spent developing basic English skills (Collier & Thomas, 2007). During these years, academic content may be difficult to access, depending on EL programing. After the initial 2 to 3 years, these students must then spend the next 6 years making a year and a half of growth each consecutive year to catch up in academic content. This would mean for an EL entering into kindergarten, it could take until eighth grade for this student to be at grade level. It is difficult for ELs coming from highly educated backgrounds with formal schooling experience to reach the 50th percentile at graduation (Collier & Thomas, 2007). It is even more of a challenge for our students that are transient, struggling with financial problems, and/or of refugee status (Collier & Thomas, 2007). Therefore, we are expecting incredible and possibly unrealistic gains from our ELs with limited time learning English.

**NWEA/MAP Test Background**

The Northwest Evaluation Association (NWEA) measures the growth of each student in Reading and Math by creating a MAP (Measure of Academic Progress) for each student. This test is administered to every student 3rd through 10th grade in this district. This is a test of approximately 45 questions and is a non-timed test.

Founded in 1973 in the Pacific Northwest of the U.S., the NWEA test is a formative assessment and a reading tool this district has been using for over 20 years. The test adapts to the student’s level as they take it, getting more difficult or easier, depending on the student’s correct and/or incorrect answers. After taking the test, each student receives an individual RIT score, or more clearly, an achievement score. This score indicates to the teacher what reading level the student is at, what skills they have mastered, and what skills they need to continue to
develop in which areas. This test was used to analyze vocabulary development along with Lexile reading level.

**Summary**

In this section, the history of educational reform both in the USA and also for ELs was addressed. The academic English vocabulary used in high schools was discussed along with the amount of time it takes ELs to develop their social and academic English needed to succeed in school. High stake testing was presented specific to the NWEA/MAP test and the limitations and challenges of high stake testing for ELs was reviewed.

**Research Questions**

1. Did the 2012 needs assessment and teacher training show a significant difference in EL student GPA over the seven-year period?

2. Did the 2012 teacher training show a change in EL graduation rates over the 7-year period?

3. Did the needs assessment and teacher training, which focused on building academic language, help the vocabulary component of the NWEA/MAP reading test for EL students?

4. Did the needs assessment and teacher training have an impact on EL students’ overall reading Lexile levels?
Chapter 3: Methodology

This chapter describes the methodology and the quantitative research design used to collect data in this study. A description of the participants and how the data was collected and analyzed is discussed.

Data Collection

Participants. There were 64 EL high-school students at a suburban high school northwest of Minneapolis who participated in the study. Students were eligible for the study if they: (1) had qualified for EL service during their high school years, (2) attended this high school between the graduating years of 2009 through 2015. If they successfully exited the EL program, or attended the Alternative high school (ALP), or qualified and attended a Post-Secondary Education Option (PSEO), or dropped out of high school, they were also included in the study. Students were excluded from the study if they moved away before graduating and / or were receiving Special Education (SPED) services.

Students in the study came from a variety of linguistic backgrounds. The largest populations of speakers were Spanish, Hmong, Lao, Russian, and Creole English. ELs in this school district speak approximately 15 different languages at home, other than English.
Participant breakdown.

Class of 2009: 10 participants
Of these 10 participants, 5 were male and 5 were female. Five were Hispanic and 5 were Asian.

Class of 2010: 7 participants
Of these 7 participants, 3 were male and 4 were female. Four were Hispanic, 2 were Black and 1 was White.

Class of 2011: 10 participants
Of these 10 participants, 2 were male and 8 were female. Six were Hispanic, 3 were Asian and 1 was White.
Class of 2012: 10 participants
Of these 10 participants, 6 were male and 4 were female. Three were Hispanic, 3 were Asian, 2 were White and 2 were Black.

![2012 Gender Chart](image1)
![2012 Ethnicity Chart](image2)

Class of 2013: 11 participants
Of these 11 participants, 6 were male and 5 were female. Five were Hispanic, 3 were Black, 2 were Asian and 1 was White.

![2013 Gender Chart](image3)
![2013 Ethnicity Chart](image4)

Class of 2014: 7 participants
Of these 7 participants, 5 were male and 2 female. Five participants were Asian and 2 were Hispanic.

![2014 Gender Chart](image5)
![2014 Ethnicity Chart](image6)
Class of 2015: 9 participants
Of these 9 participants, 6 were male and 3 female. Two participants were Black, 5 were Hispanic, and 2 were Asian.

<table>
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<tr>
<th>2015 GENDER</th>
<th>2015 ETHNICITY</th>
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<tr>
<td>Female 33%</td>
<td>Asian 22%</td>
</tr>
<tr>
<td>Male 67%</td>
<td>Black 22%</td>
</tr>
<tr>
<td></td>
<td>Hispanic 56%</td>
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**Student data collection technique.** Data was collected in two phases. First, the students grade level, length of years at the high school, final grade point average at the end of their senior year, graduation status (if they graduated or not), if they exited the EL program (which requires them to pass their EL language assessment test by WIDA, maintain at least a 2.0 GPA and pass the MCA or NWEA standardized tests), their ethnicity and language spoken at home were collected. These were all retrieved through the district’s information storage system called Technology and Information Educational Services (TIES). As a teacher in the district I am permitted access to view EL’s background information in the TIES system. In 2010, the district changed data storage systems (from SASI to TIES) and I was granted permission to have a senior administrative assistant along with the guidance office help retrieve the information, mainly for EL students graduating in the years 2009 and 2010.

The second phase of data collection was specific to standardized test results. Student reading achievement data was collected using the NWEA MAP assessment test, which was administered during each student’s 10th and/or 11th grade year. Specific information from the NWEA that was collected included their vocabulary score and their reading Lexile score.
The NWEA standardized test was chosen over other tests including the MCA, the PLAN test, and the ACCESS test for a variety of reasons. First, the Minnesota Common Assessment (MCA) test changed from MCA II to MCA III in 2013, making the direct comparison over the 7 years, more complicated and potentially inconsistent. The PLAN test (a precursor to the national ACT test) was eliminated from further analysis due to the timed nature of the test, which ultimately does not show reading or vocabulary development in EL students since they are cut off from answering the questions after their time limit is up. The ACCESS test was also eliminated from the testing data collected because the state of Minnesota officially began administering this test in the spring of 2012, and the data collected for this study began in 2009, thus not allowing the full 7 years of data to be analyzed. The NWEA was the only standardized reading test that has consistently been administered to all students at this high school during the whole 7-year timeframe, between 2009 and 2015, with minor changes to the test format.

All information gathered from the TIES system: graduation year for each EL student, length of LEP service in our district, ethnicity, overall GPA, graduation rate per class over the 7-year period, NWEA information including average RIT score per graduating class, average vocabulary level per graduating class, average Lexile reading level per graduating class was manually entered into a Microsoft Excel spreadsheet.

Procedure

Independent variables. The procedure of the study was as follows. Throughout the school year, new student information such as U.S. entry, school entry date, language proficiency, grade level, EL status, Special Education status, and qualification for free or
reduced lunch, and other notes are entered into TIES by individual schools’ secretaries and guidance office personnel. This information comes directly from the parents or guardians completing the registration forms. Students who are previously enrolled in the district have their information updated annually.

These EL enrollments only qualified for selection if the students did not qualify for SPED and they were at the high school, without moving away. This information was coded into an excel spreadsheet.

An independent variable is defined in statistics as a variable in an experiment in which the experimenter manipulates to observe its relationship with another quantity (Collins English Dictionary, 2010). In this data set, the instruction received by teachers who went through the 2010-2012 EL Needs Assessment training was the independent variable. These selected teachers were supposed to disseminate this training to the rest of their department and incorporate it into their classes.

**Dependent variables.** After gathering independent variables and entering them into the Excel software, the process of retrieving and entering dependent variables continued: student graduation rate percentage, students GPA average by class at graduation, students EL status (exit, ALP, or drop-out). Additional dependent variables collected included information from the NWEA MAP test, which is taken every winter, such as students’ individual vocabulary scores and reading Lexile scores.

A dependent variable is the event (here the MAP scores along with the GPA and graduation rates) studied and anticipated to change according to the independent variables (Collins English Dictionary, 2010). All students in grades 9 and 10 are required by the district
to take the NWEA MAP reading test once a year, during the winter. After each testing cycle, a student’s RIT score is entered into the TIES system with a date and breakdown of scores on each portion of the test (vocabulary and reading Lexile among them). I retrieved each student’s individual vocabulary score and reading Lexile level in this study and averaged them by graduating class. In addition, I also averaged these scores by graduating class after removing the two outliers (the very highest score and the very lowest score) from each class. However, after analyzing the difference between including the outliers and removing them, the difference was not significant enough so I ultimately included them in the final testing. After collecting the NWEA MAP scores for all qualified participants, I collected other dependent variable information from the guidance office, which included student transcripts with graduation rates, final GPAs, how many years they took EL class, and their final LEP status.

**Data Analysis**

Using both Microsoft Excel and Statistical Package for Social Sciences (SPSS) computer program several analyses were conducted. These analysis included: Graduation Status (graduates and dropouts), Grade Point Average (GPA) at graduation, Vocabulary Average from NWEA/MAP test, and Reading Lexile Average from the NWEA/MAP test.

**Dividing the participants into two groups.** After recording and averaging all of the information in Excel, the SPSS computer program was used to create t-tests to determine the means and standard deviations of the two groups and to look at the correlations between the two groups and to determine if there were any significant differences with the students in each group. These two groups were broken down into Group A and Group B. Group A included
graduating classes from 2009 through 2012 with 37 participants; students who graduated before and during the needs assessment and teacher training, who were not affected by the teacher training. Group B included graduating classes from 2013 through 2015 involving students after the training was finished. The date of 2012 was a pivoting point in this study since students after that date were receiving instruction from teachers who had received the EL teacher training, which had stemmed from the needs assessment.

As data were collected, these questions continued to be examined:

1. Is the difference between the means of the two samples groups different enough to determine whether some other variable(s), such as the training that was offered after the EL needs assessment, could have caused the difference?

2. Did the EL training which showed how to create and incorporate language objectives and the mainstream teachers who went through the training, have an impact on the student’s academic performance in class (GPAs) and/or on the vocabulary component or the reading Lexile level demonstrated on the NWEA reading test?

3. Was there a significant difference between Group A and Group B when it came to final GPA’s, graduation rates, vocabulary test results or reading Lexile level?

**Significance.** Correlations (2-tailed) were done to determine if any significance existed below the .05 level. In statistics, “significant” means probably true. Significance levels shows how likely a pattern in the data is due to chance. The most common level is .95, meaning that the finding has a 95% chance of being true. However, in statistics, instead of being displayed as .95 it will show as .05, meaning the finding has a 5% (.05) chance of not
being true, which is the opposite of a 95% chance of being true. For example, if \( p = .01 \) it means there is a 99% chance of it being true. If \( p < .05 \) (which is the most common level used), then there is a 95% or more chance of it being true (Nunan & Bailey, 2009).

**Summary**

The overall methodology and research design of this quantitative study is to determine if the needs assessment and teacher training made a significant difference in academic performance of the ELs at this high school. A description of the participants along with how the data was collected and how it was analyzed were shared.
Chapter 4: Results

This study took place in a northwest suburb of a metropolitan area in the upper Midwest of the United States. Participants included sixty-four high school EL students, who graduated between 2009 and 2015. Data were collected to determine if there have been any trends over the past 7 years regarding academic performance of these high school EL students. Graduation rates, grade point averages and NWEA standardized test scores were gathered from the data storage information system used in this district called TIES. Students qualifying for EL services during their high school years (excluding special education students and students who moved away during high school) were included in the study. From TIES, this information was recorded and coded into Microsoft Excel then entered in the statistical analysis tool of SPSS. Test results were divided into two groups, students graduating between 2009 through 2012 (Group A) and students graduating between 2013 through 2015 (Group B). The mean and standard deviation were found for both groups using the four research questions, then t-tests were conducted to determine if any significant differences existed between Group A and Group B.

Research Question 1. Did the 2012 needs assessment and teacher training show a significant difference in EL student grade point average over the 7-year period?

A slight decrease in grade point average between Group A (2.46) and Group B (2.35), as reflected in Tables 1 and 2 below, was observed in the results. After entering this information into SPSS, no significant difference in GPA was found between Group A and Group B (p = .453).
A slight decrease, as reflected in Table 1, was observed in the overall GPA mean over the 7-year period. The standard deviation is higher in 2010 (.680006) and 2013 (.646074), which indicates the scores are spread wider around the mean. In 2010, three students earned a GPA over 3.0 (one student as high as 3.281) and one student earned a GPA lower than a 2.0 (with a 1.28). In 2013, two students earned a GPA over 3.5 (3.61 and 3.822) and two students earned a GPA below 2.0 (1.961 and 1.928).

Table 1

**Final GPA, All Students**

<table>
<thead>
<tr>
<th>Class of</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2.47980</td>
<td>10</td>
<td>.506387</td>
</tr>
<tr>
<td>2010</td>
<td>2.65257</td>
<td>7</td>
<td>.680006</td>
</tr>
<tr>
<td>2011</td>
<td>2.53760</td>
<td>10</td>
<td>.572293</td>
</tr>
<tr>
<td>2012</td>
<td>2.24390</td>
<td>10</td>
<td>.525821</td>
</tr>
<tr>
<td>2013</td>
<td>2.52355</td>
<td>11</td>
<td>.646074</td>
</tr>
<tr>
<td>2014</td>
<td>2.23714</td>
<td>7</td>
<td>.541251</td>
</tr>
<tr>
<td>2015</td>
<td>2.24144</td>
<td>9</td>
<td>.551567</td>
</tr>
<tr>
<td>Total</td>
<td>2.41833</td>
<td>64</td>
<td>.568841</td>
</tr>
</tbody>
</table>

Table 2 below compares the final grade point average of the two groups, the Before and Including Training Group (Group A: 2009-2012) and the After Training Group (Group B: 2013-2015). As mentioned, there was a slight decrease in the overall GPA mean between the two groups.

Table 2

**Group Statistics of GPA before and after 2012 Training**

<table>
<thead>
<tr>
<th>Training</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final GPA Before &amp; Including Training</td>
<td>37</td>
<td>2.46435</td>
<td>.560466</td>
</tr>
<tr>
<td>After Training</td>
<td>27</td>
<td>2.35526</td>
<td>.584788</td>
</tr>
</tbody>
</table>
After the mean and standard deviation were found between the two groups, Levene’s test for equality of variances was performed which determined equal variances between the groups were assumed.

Table 3

*Final GPA t-test*

<table>
<thead>
<tr>
<th></th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td>Final GPA</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.755</td>
</tr>
</tbody>
</table>

Table 3 shows the significance between Group A and Group B as p = .453. The two groups were not statistically significantly different.

While Table 1 shows a slight decrease in the overall GPA mean during the 7-year period, Table 2 shows a decrease in GPA between the mean of Group A and Group B. After the t-test was performed using the mean and standard deviation of these two groups, Table 3 shows no statistical significant difference between the two groups.

**Research Question 2. Did the 2012 teacher training show a change in graduation rates over the 7-year period?**

Tables 4 and 5 show a positive trend of graduation rates among the EL students in this school district. Table 4 shows an increase in the graduation rates from the mean of Group A to the mean of Group B rose from approximately 86% to 93%, an almost 7% increase in graduation rates of EL students in this district.
Table 4

*Average Graduation Rates Group A vs. Group B*

<table>
<thead>
<tr>
<th>Graduation Year</th>
<th>EL Graduation Rates</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>80</td>
<td>8 out of 10</td>
</tr>
<tr>
<td>2010</td>
<td>85</td>
<td>6 out of 7</td>
</tr>
<tr>
<td>2011</td>
<td>90</td>
<td>9 out of 10</td>
</tr>
<tr>
<td>2012</td>
<td>90</td>
<td>9 out of 10</td>
</tr>
<tr>
<td><strong>Before/Including Training (Group A)</strong></td>
<td><strong>86.25%</strong></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>91</td>
<td>10 out of 11</td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
<td>7 out of 7</td>
</tr>
<tr>
<td>2015</td>
<td>88</td>
<td>8 out of 9</td>
</tr>
</tbody>
</table>

**After training (Group B)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>91</td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
</tr>
<tr>
<td>2015</td>
<td>88</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>88.00%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows a positive trend of graduation rates among the EL students in this school district over the past 7 years.

Table 5

*Average EL Graduation Rates 7-year Trend*

<table>
<thead>
<tr>
<th>EL Graduation Rates</th>
<th>Year</th>
<th>EL Graduation Rate %</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>80</td>
<td>8 out of 10</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>85</td>
<td>6 out of 7</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>90</td>
<td>9 out of 10</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>90</td>
<td>9 out of 10</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>91</td>
<td>10 out of 11</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
<td>7 out of 7</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>88</td>
<td>8 out of 9</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 below shows the seven-year graduation rate trend of all Minnesota students, the 7-year graduation trend for the district in this study, and the seven-year graduation trend for the EL students of this high school.
Table 6

7-year Graduation Trend per MN Report Card

<table>
<thead>
<tr>
<th>Graduating Year</th>
<th>State of Minnesota Graduation Rate</th>
<th>District overall Graduation Rate</th>
<th>District EL Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>82.6%</td>
<td>Not available</td>
<td>80%</td>
</tr>
<tr>
<td>2010</td>
<td>80.4%</td>
<td>93.9%</td>
<td>85%</td>
</tr>
<tr>
<td>2011</td>
<td>77.2%</td>
<td>96.4%</td>
<td>90%</td>
</tr>
<tr>
<td>2012</td>
<td>77.9%</td>
<td>96%</td>
<td>90%</td>
</tr>
<tr>
<td>2013</td>
<td>79.8%</td>
<td>98%</td>
<td>91%</td>
</tr>
<tr>
<td>2014</td>
<td>81.2%</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td>2015</td>
<td>81.9%</td>
<td>98.6%</td>
<td>88%</td>
</tr>
<tr>
<td>Mean</td>
<td>80.14%</td>
<td>96.82%</td>
<td>89.14%</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.85</td>
<td>1.6</td>
<td>5.67</td>
</tr>
</tbody>
</table>

While the high school EL students in this district continue to be out-performed by their mainstream peers, they are graduating at a higher rate than their peers within the greater state of Minnesota. The 7-year graduation rate mean for the state of Minnesota came in at 80.14% while the EL graduation rate in this district averaged 9% higher than the state.

**Research Question 3. Did the needs assessment and teacher training, which focused on building academic language, help the vocabulary component of the NWEA/MAP reading test?**

Even though the mean increased slightly between Group A (218.17) and Group B (221.16), there was no statistical significance \((p = .260)\) within the vocabulary means between the two groups.

Table 7 below shows a positive trend over the seven-year period regarding the vocabulary scores on the annual NWEA reading test. The years of 2011, 2014, and 2015 had one vocabulary score (each year) missing from the data set. For example, during the graduating year of 2011 there were 10 participants in the study, however one participant’s vocabulary score in TIES was not available. This information was missing from the TIES
Learning Management System within the district. Based on the average RIT score on the NWEA test from each of these three students, the missing vocabulary score was eliminated from the overall average so it would not positively or negatively sway the results.

The year 2012 shows an unusually high standard deviation of 20.232, nearly double that of any other year tested during the 7-year period. The vocabulary scores from 2012 ranged from 180 to 240, with the average coming in at 214.7.

Table 7

**Vocabulary Scores of All EL Students**

<table>
<thead>
<tr>
<th>Class of</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>219.00</td>
<td>10</td>
<td>10.934</td>
</tr>
<tr>
<td>2010</td>
<td>219.00</td>
<td>7</td>
<td>8.266</td>
</tr>
<tr>
<td>2011*</td>
<td>220.44</td>
<td>9</td>
<td>10.713</td>
</tr>
<tr>
<td>2012</td>
<td>214.70</td>
<td>10</td>
<td>20.232</td>
</tr>
<tr>
<td>2013</td>
<td>218.82</td>
<td>11</td>
<td>6.014</td>
</tr>
<tr>
<td>2014*</td>
<td>222.67</td>
<td>6</td>
<td>9.374</td>
</tr>
<tr>
<td>2015*</td>
<td>223.25</td>
<td>8</td>
<td>6.018</td>
</tr>
<tr>
<td>Total</td>
<td>219.39</td>
<td>61</td>
<td>11.227</td>
</tr>
</tbody>
</table>

* missing vocabulary score from TIES

Table 8 shows the overall mean difference between the two groups, before the training occurred and after the training was over. The overall mean difference in vocabulary scores between Group A and Group B increased by almost 3 points (2.99) meanwhile the standard deviation spread decreased from 13.381 in Group A (before and during training) to 6.962 in Group B.
Table 8

**Vocabulary Groups Statistics before and after Training**

<table>
<thead>
<tr>
<th>Training</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary Before &amp; Including</td>
<td>36</td>
<td>218.17</td>
<td>13.381</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Training</td>
<td>25</td>
<td>221.16</td>
<td>6.962</td>
</tr>
</tbody>
</table>

After the Levine’s test was administered, equal variances were not assumed. After further analysis, Table 9 shows no statistical significance \( p = .260 \) within the vocabulary means between the two groups.

Table 9

**Vocabulary t-test**

<table>
<thead>
<tr>
<th></th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td>Vocabulary Equal variances</td>
<td>-1.138</td>
</tr>
<tr>
<td>not assumed</td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 4. Did the needs assessment and teacher training have an impact on EL students’ overall reading Lexile levels?**

Even though the mean between Group A and Group B decreased by .6, thus narrowing the reading gap between the EL students and their mainstream peers, it was still not statistically significant enough \( p = .114 \) to have made a difference. Many EL students at this high school read below grade level. However Tables 10 and 11 show a positive trend over the past 7 years of closing this reading Lexile level gap, as found on the NWEA reading test. Again, the Lexile level is a scientific approach to measuring the reading ability and the text demand of reading materials and can help describe the reading ability of an individual.
The mean column in Table 10 represents the reading grade levels these EL students are behind. In particular, 2012 shows a substantial Lexile reading gap of 1.9710 mean, showing an almost two grade level mean difference. Two students of the 2012 graduating class were significantly low (5 and 7 levels below grade level) while three of their graduating peers were .5 above their reading grade level. Meanwhile, the very next year in 2013, shows a much smaller reading gap of .9145 mean difference between the EL graduates and their mainstream peers.

Table 10

**Below Grade Level Reading Lexile**

<table>
<thead>
<tr>
<th>Class of</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1.5000</td>
<td>10</td>
<td>1.58059</td>
</tr>
<tr>
<td>2010</td>
<td>1.2414</td>
<td>7</td>
<td>1.58688</td>
</tr>
<tr>
<td>2011*</td>
<td>1.7133</td>
<td>9</td>
<td>1.85871</td>
</tr>
<tr>
<td>2012</td>
<td>1.9710</td>
<td>10</td>
<td>2.68951</td>
</tr>
<tr>
<td>2013</td>
<td>.9145</td>
<td>11</td>
<td>1.19944</td>
</tr>
<tr>
<td>2014</td>
<td>1.0300</td>
<td>7</td>
<td>1.08856</td>
</tr>
<tr>
<td>2015</td>
<td>1.1811</td>
<td>9</td>
<td>.52193</td>
</tr>
<tr>
<td>Total</td>
<td>1.3765</td>
<td>63</td>
<td>1.61832</td>
</tr>
</tbody>
</table>

Table 11 shows a mean difference of .6006 between the two groups before training happened (2009-2012) and in the 3 years after training occurred (2013-2015), showing a positive trend of closing the reading gap.

Table 11

**Reading Lexile Level below Grade Level-before Training vs. after Training**

<table>
<thead>
<tr>
<th>Training</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Grade level Lexile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average) Before &amp; Including Training</td>
<td>36</td>
<td>1.6339</td>
<td>1.94777</td>
</tr>
<tr>
<td>After Training</td>
<td>27</td>
<td>1.0333</td>
<td>.96132</td>
</tr>
</tbody>
</table>
Table 12 shows a t-test to establish significance between Group A and Group B. Though the significance was smaller (p = .114), it was still not strong enough to be considered statistically significant between Group A and Group B.

Table 12

Reading Lexile Level below Grade Level t-test

<table>
<thead>
<tr>
<th>Vocabulary</th>
<th>Equal variances not assumed</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1.607</td>
<td>53.789</td>
<td>.114</td>
<td>.60056</td>
</tr>
</tbody>
</table>

As demonstrated, many EL students at this high school read below grade level. Although the mean between Group A and Group B decreased by .6, indicating the reading gap may be closing among the ELs in this district, it was still not statistically significant enough (p = .114) to have made a difference.
Chapter 5: Conclusion

This study took place in a public high school in an outer suburb of a metropolitan area in the upper Midwest of the United States. Data from 64 EL students at this high school, all in graduating classes between 2009 and 2015, were collected to determine if there have been any trends over the past 7 years in the academic performance of these high school EL students. Information such as GPAs, class graduation rates and reading information (specific to vocabulary and reading Lexile level) were collected from the NWEA/MAP test scores to determine these trends.

The purpose of this study was to determine if the achievement gap between EL students and their mainstream peers has changed over the past seven years. The four research questions that were investigated in this study provided useful insight in determining if the EL teacher training of 2012 made an impact on this district’s EL students’ academic performance in class (GPAs), their graduation rate trends, and the vocabulary component and reading Lexile level as demonstrated on their NWEA standardized reading tests.

Research Questions

Research Question 1. Did the 2012 needs assessment and teacher training show a significant difference in EL student GPA over the 7-year period?

As mentioned, there has been a slight decrease in overall GPA of our EL students at the high school level over the past 7 years. Statistically, the 2-tailed significance came in at .45, which is well above the .05 significance breakpoint. This could be due to a variety of reasons. In 2010, Minnesota revised its standards and in 2012-2013 implemented these higher Common Core standards into the curriculum requirements. Another reason the GPA average
might be slightly lower than expected is due to the limited number of participants in this study. Just two or three students in one graduating class can significantly affect the results with high or low GPAs.

**Research Question 2. Did the 2012 teacher training show a change in EL graduation rates over the 7-year period?**

It is encouraging to see that the graduation rates of the EL students at this high school continue to increase. Group A graduation average was 86% and Group B’s graduation rate came in at 93%, an increase of 7%. Though a gap between the EL and mainstream students at this high school still exists, it is motivating to see the EL graduation rates in this district surpassing the state of Minnesota’s regular graduation rate.

According to Minnesota’s Department of Education, its goal by 2020 is to see the state graduation rate over 90%. In 2014, this districts EL graduation reached a perfect 100%, with all seven of its remaining EL/LEP students graduating on time. In 2015, with just one EL student dropping out in the spring of his senior year, it decreased the graduation rate to 88% (8 out of 9 graduates). When dealing with low EL student numbers, it’s significant how much one student can change the graduation rate of this district’s EL graduating class.

**Research Question 3. Did the needs assessment and teacher training, which focused on building academic language, help the vocabulary component of the NWEA/MAP reading test?**

According to the NWEA/MAP reading results specific to vocabulary, there has been a positive growth among our EL student population at the high school. The overall mean difference in vocabulary scores between Group A and Group B increased by almost 3 points;
meanwhile the standard deviation spread decreased by over 6 points (from approximately 13.4 to approximately 7.0). Although there was no statistical significance between Group A and Group B vocabulary scores (p = .26), there appears to be some improvement as shown with the mean scores between the two groups.

**Research Question 4. Did the needs assessment and teacher training have an impact on EL students’ overall reading Lexile levels?**

Over the past 5 years, a big push has been made in this district to increase our students reading skills, with both mainstream students and special groups such as EL. When choosing books to read with students, the Lexile level is often used which determines what grade level range the reading material is at. Unfortunately, by the time some of these ELs are seniors, the reading gap is as high as 5 or more years behind their peers, which will create additional challenges for post-secondary education when asked to synthesize and analyze reading material. After analyzing the reading levels of these EL students over the past 7 years, it is exciting to see the reading gap is narrowing. Over the past 3 years, there is approximately a 1-year grade level gap (1.03) between the EL graduates and the mainstream students in this district. This is an improvement from the Lexile gap in 2011 and 2012 where it was close to two grade levels lower.

**Findings**

One surprising finding with the GPA statistics between the two groups was a slight decrease in GPA between the earlier Group A, graduating between 2009-2012 receiving an overall mean of 2.46 GPA and later Group B, graduating between 2013-2015, receiving an overall GPA mean of 2.35. Because the graduating classes of EL students are so small at this
high school (ranging from 7-11 students each year) just a couple of students can greatly sway these results.

One interesting finding was that the graduation rates of the EL students at this high school continue to out-perform the state of Minnesota’s average graduation rates. According to the Minnesota Report Card, as published by the Minnesota Department of Education, this district’s EL student population has out-performed the overall MN graduation rates for the past 6 years (ranging anywhere between 5% to 19% higher). Even though the graduation rates of the EL students in this district continue to rise, they are still well below their mainstream peers in the same district (ranging between 6% to 10% below their peers). Note that the graduation rates of the mainstream in this district are among the very highest in the state, at 98% in 2015 compared to 81.9% mainstream graduation rate for the state of Minnesota in 2015.

Two encouraging findings show a mean increase both in our EL students’ academic vocabulary and in our EL students’ reading Lexile levels as found on the NWEA/MAP standardized reading test. Though more work and training are continually needed, it is still rewarding to see that the district’s EL teacher training effort in 2012 which focused on building academic vocabulary in the content areas and the high school building’s 2015-2016 staff goal “to deliberately use teaching strategies to increase critical literacy” has helped to increase the average academic vocabulary scores and reading lexile level increase over the recent years.
Conclusion

Although it is a small study, the results provided useful insight into our EL students’ overall academic performance. What is especially interesting is that while there was a somewhat positive increase in the average between the teacher training administered district-wide with the vocabulary test scores and the reading Lexile levels over the past 7 years, statistically, there was no significant difference between the groups; however when looking at the means of the two groups, Group B showed stronger numbers. The correlation was not significant with the EL students’ overall GPA at graduation and the mean between the two groups showed a slight decrease. This seems to indicate that the training was somewhat effective specifically with building academic vocabulary and overall reading strategies, however it may not have been directly transferred into the actual grades (GPA) the EL students earned in their mainstream classes. After working with high school aged students, I have often observed that the GPAs they earn in their classes do not necessarily reflect how hard they work. As many realize, there is a lot more that should be evaluated and reviewed when looking at a student’s overall academic abilities then just their grade point average.

Further Research

Future studies that could provide additional insights into the understanding of how to help the academic performance of high school EL students would be to continue looking at strategies of how to help EL students increase their GPAs during their high school years since it plays a significant part in post-education acceptance.

Statistically, the training effort did not make a difference in the EL achievement over the past 7 years. Perhaps a larger EL student population giving more participants as well as
more time analyzing future classes is needed. However, when looking at the averages of the EL students over the years, there are very positive steps that have been accomplished in this EL program. Not only did the EL graduation rates rise, the academic vocabulary became stronger, and the reading Lexile level gap decreased, but the overall EL program support and the partnerships between mainstream and EL colleagues grew substantially in this district.
References

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Appendix

Acronyms and Abbreviations Defined

ACCESS: Assessing Comprehension and Communication in English State-to-State

AMAO: Annual Measurable Achievement Objectives

AYP: Annual Yearly Progress

ACT test: American College Testing

BICS: Basic Interpersonal Communicative Skills

CALP: Cognitive Academic Language Proficiency

EL: English Learner (current term commonly used in MN public education K-12)

ELL: English Language Learner (older term used in MN public education K-12)

ESL: English as a second language (older term used in MN public education K-12)

ESEA: Elementary and Secondary Education Act

ELP: English Language Proficiency (when it comes to standards)

GPA: Grade Point Average

HS: High School

ISD: Independent School District

K-12: Kindergarten through 12th grade

LEP: Limited English Proficient

MCA: Minnesota Common Assessment

MAP: Measure of Academic Progress

MARSS: Minnesota Automated Reporting Student System

NCLB: No Child Left Behind Act of 2001
NWEA: Northwest Evaluation Association

PLAN test: No abbreviation found, but part of the ACT test suite

RIT: Rasch Unit score used in the MAP/NWEA test equal-interval vertical scale

SIOP: Sheltered Instruction Observation Protocol

STMA: Saint Michael / Albertville

TIES: learning management system that district 885 uses for grade entry, test entry, attendance, etc.

WIDA: Originally stood for Wisconsin, Delaware and Alabama, but later changed the acronym to stand for World-Class Instructional Design and Assessment.