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# A Study on ACCESS Scores and MAP Data 

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## by

## Deborah Lynn Pearson

March 2015

A Dissertation submitted to the Education Faculty of Lindenwood University in partial fulfillment of the requirements for the degree of

Doctor of Education

School of Education

A Study on ACCESS Scores and MAP Data

## by

## Deborah Lynn Pearson

This Dissertation has been approved as partial fulfillment of the requirements for the degree of

Doctor of Education
Lindenwood University, School of Education


Declaration of Originality
I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

Full Legal Name: Deborah Lynn Pearson
Signature


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#### Abstract

English Language Learners (ELLs) are no longer a part of specific areas of America. They have crossed all classroom boundaries of the United States. This means as ELLs have integrated into the classrooms, educators are becoming versed in methods and strategies to help ELLs learn and achieve proficiency on standardized assessments. The purpose of this study was to determine if ELLs learned enough to be proficient in English to do well on a standardized test as their non-ELL peers. The Missouri Assessment Program (MAP) and the Assessing Comprehension and Communication in English State to State (ACCESS) were the two exams used to compare proficiency results. The MAP is the standardized test given to Missouri students beginning at Grade 3. The ACCESS is a language achievement test developed by the World-Class Instructional Design and Assessment (WIDA) Consortium to track levels of English in students beginning in Kindergarten. Students in Grades 3 through 8 were the focus for this study. The exam results of ELLs who took both the MAP and ACCESS were analyzed and compared to their non-ELL peers. The results showed that ELLs who meet academic proficiency on their ACCESS test also have as much English comprehension to do as well on the MAP as the non-ELLs. All groups of students, Grades 3 through 8, showed that if ELLs have reached a level of bridging, or Level 5, they are capable of working with grade level material in English.


## Table of Contents

Abstract ..... iii
List of Tables ..... vii
List of Figures ..... viii
Chapter One: Introduction ..... 1
Background of the Study ..... 2
Conceptual Framework ..... 7
Statement of the Problem ..... 9
Purpose of the Study ..... 11
Research questions ..... 13
Null hypotheses ..... 13
Alternative hypotheses ..... 14
Definition of Key Terms ..... 15
Limitations ..... 18
Sample demographics ..... 19
Instrument ..... 19
Summary ..... 19
Chapter Two: Review of Literature ..... 22
Influences on Schools: Federal and State Mandates and Initiatives ..... 24
Attaining English as a Student: Bilingual Versus Immersion Environment ..... 25
Contributions to Instruction for English Language Learners: Methods and
Strategies ..... 31
Professional Development for Educators ..... 36
Assessing English Language Learners ..... 37
Valid Testing of English Language Learners ..... 39
Summary ..... 42
Chapter Three: Methodology ..... 44
Research Questions ..... 45
Null hypotheses. ..... 46
Alternative hypotheses. ..... 47
Population. ..... 48
Sample ..... 49
Instrument ..... 50
Data Collection ..... 52
Data Analysis ..... 53
Descriptive statistics ..... 53
Inferential statistics ..... 53
Ethical Considerations ..... 54
Summary ..... 55
Chapter Four: Analysis of Data. ..... 56
Research Questions ..... 57
Quantitative Analysis ..... 58
Research Question 1 ..... 58
Research Question 2 ..... 63
Research Question 3 ..... 68
Summary of Research Questions 1 and 2. ..... 74
Research Question 4 ..... 74
Research Question 5 ..... 79
Summary ..... 85
Chapter Five: Findings and Recommendations ..... 86
Findings ..... 88
Conclusions ..... 96
Implications for Practice ..... 97
Recommendations for Future Research ..... 100
Summary ..... 102
References ..... 104
Appendix A ..... 119
Appendix B ..... 121
Appendix C ..... 123
Appendix D ..... 124
Vita ..... 125

## List of Tables

Table 1. ACCESS Proficiency Level Descriptions ..... 51
Table 2. MAP Proficiency Level Descriptions ..... 52
Table 3. MAP by ACCESS Reading Achievement Levels of Participants ..... 60
Table 4. PPMC between MAP Composite Reading Percentage and ACCESS Reading
Achievement Levels and Scale Scores ..... 61
Table 5. MAP by ACCESS Overall Achievement Levels of Participants ..... 64
Table 6. PPMC Among Overall ACCESS and MAP Communication Arts Achievement
Levels and Scale Scores ..... 66
Table 7. MAP Math by ACCESS Overall Achievement Levels of Participants ..... 70
Table 8. PPMC among Overall ACCESS and MAP Math Achievement Levels and Scale
Scores ..... 71
Table 9. Frequencies and Percentages of MAP Communication Arts Achievement Levels
for ELLs and Non-ELLs ..... 77
Table 10. Means and Standard Deviations for MAP Communication Arts Scale Scores for ELLs and Non-ELLs ..... 78
Table 11. ANOVA of Overall MAP Communication Arts Scale Scores by Group ..... 79
Table 12. Frequencies and Percentages of MAP Math Achievement Levels for ELLs and Non-ELLs ..... 83
Table 13. Means and Standard Deviations for MAP Math Scale Scores for ELL and Non-ELL Students ..... 84
Table 14. ANOVA of Overall MAP Math Scale Scores by Group ..... 84

## List of Figures

Figure 1. Scatter plot of MAP composite reading percentage and ACCESS reading achievement level.............................................................................. 62

Figure 2. Scatter plot of MAP composite reading percentages and ACCESS reading scale score............................................................................................ 62

Figure 3. Scatter plot of MAP communication arts levels and overall ACCESS achievement levels66

Figure 4. Scatter plot of MAP communication arts scale scores and overall ACCESS achievement levels67

Figure 5. Scatter plot of MAP communication arts scale scores and overall ACCESS scale scores.......................................................................................... 67

Figure 6. Scatter plot of MAP communication arts achievement level and ACCESS
$\qquad$
Figure 7. Scatter plot of MAP math achievement levels and overall ACCESS achievement levels.............................................................................. 72

Figure 8. Scatter plot of MAP math scale scores and overall ACCESS achievement levels.72

Figure 9. Scatter plot of MAP math achievement levels and overall ACCESS scale scores73

Figure 10. Scatter plot of MAP math scale scores and overall ACCESS scale scores73
Figure 11. Percentage of ELLs per MAP communication arts achievement level ..... 75

Figure 12. Percentage of non-ELLs per MAP communication arts achievement
$\qquad$ levels75

Figure 13. Bar graph of MAP communication arts achievement levels for both ELLs and non-ELLs76

Figure 14. Bar graph of means of ELLs' and non-ELLs' MAP communication arts scale scores. 79

Figure 15. Percentage of ELLs per MAP math achievement levels80

Figure 16. Percentage of non-ELLs per MAP math achievement levels...................... 81
Figure 17. Bar graph of MAP math achievement levels for both ELLs and non-ELLs... 82
Figure 18. Bar graph of means of ELLs' and non-ELLs' MAP math scale scores......... 85

## Chapter One: Introduction

Language development, a critical foundation for education, is a challenge for all learners. The acquisition of this essential mode of communication is especially difficult for those who converse at home in one language but in school must learn in a second (Cook, 2009; Helfrich \& Bosh, 2011). These students may experience more challenges in developing proficient language skills that prove what they really comprehend in academics (Cook, 2009; Helfrich \& Bosh, 2011).

Today, as learning institutions are facing an influx of culturally diverse students, schools are challenged to select programs for English acquisition to meet students' unique language needs, while also complying with the requirements of the No Child Left Behind (NCLB) Act of 2001; additionally, schools have been challenged to show growth for all students in order to meet the Adequate Yearly Progress (AYP) standards (National Center for Education Statistics [NCES], 2010). The NCLB Act specifically outlined state and federal requirements for students with Limited-English-Proficiency (LEP) in language that is included in the legislation's Annual Measureable Achievement Objectives (AMAOs) (Missouri Department of Elementary and Secondary Education [MODESE], 2013). In this study, LEP students are referred to as English Language Learners (ELLs) who come from countries with a predominance of non-English speakers, are not proficient at using English and require academic modifications and accommodations to apply instructions written in English to learning (U.S. Department of Education, n.d.b).

Pressures from NCLB mandates have created a need for valid student assessments that measure more than social language gains. Language exams providing reliable data in
academic growth for ELLs have evolved during the past two decades to measure not only the social development of language but also all four domains of academic language: reading, writing, listening, and speaking (World-Class Instructional Design and Assessment [WIDA] Consortium, 2007). These four domains are tenants of the Common Core State Standards (CCSS), which have been embraced by more than 40 states "for conceptual clarity;" participating states also agree that, "the processes of communication are closely connected" in language development (MODESE, 2013, p. 4).

Studies have been done to compare ELLs' and non-ELLs' literacy skills through comparisons of performance on national tests (Young, 2009), but few researchers have compared language tests and state examination data (Parker, Louie, \& O’Dwyer, 2009). Language studies of the past only documented or assessed students' ability to express themselves in social situations with their second language (Hakuta, Butler, \& Witt, 2000; Parker et al., 2009). Historically, few studies have been conducted to define the relationship between learning a language and learning academic content (Cook, 2009; Parker et al., 2009). In this study, research was conducted to compare the level of student language proficiency on the ACCESS test, a national language exam, to proficiency on the Missouri Assessment Program (MAP), a state assessment, in communication arts and math.

## Background of the Study

School districts across the United States have struggled to accommodate ELLs with programs to help them obtain the language needed to be successful in school (Bunch, 2011). While public schools have been mandated by NCLB to provide language programs, such as bilingual education or English immersion, states have not always been
provided with clear guidance on what constitutes the most effective programs to meet the needs of ELLs. States have chosen numerous approaches that have not always resulted in equality among schools (Bunch, 2011).

Federal legislation in the United States, established after the 1964 Civil Rights Act, began defining how states and districts were to support ELLs (Bunch, 2011). The Bilingual Education Act (BEA) was signed into law in January 1968 by President Lyndon B. Johnson (Stewner-Manzanares, 1988). The language of "Limited English Proficiency" was first mentioned in the BEA (Bunch, 2011; Stewner-Manzanares, 1988). The BEA served to reinforce and clarify the 1965 Elementary and Secondary Act (ESEA). The ESEA provided grants to districts with students of poverty to establish innovative educational programs for students with limited English-speaking ability (Bunch, 2011; Lopez \& McEneaney, 2012).

A number of court cases related to the instruction of ELLs prompted legislation for states to develop academic language programs that are unbiased and ethical (Bunch, 2011; Lopez \& McEneaney, 2012; Menken, 2006). A landmark court decision related to the education of ELLs is the 1974 Supreme Court decision in Lau v. Nichols, which determined the actions of schools in San Francisco, California, violated the educational rights of ELLs and the Civil Rights Act of 1964 by not supporting students to acquire the English language needed to study and graduate from school (Bunch, 2011). As a result of this federal court decision in July of 1974, California schools began integrating learning the English language as a part of their instructional practices (Bunch, 2011).

The Equal Educational Opportunity Act (EEOA) of August 1974 was enacted to protect students from discrimination based on national origin or race and mandated all
districts provide strategies to support learning the English language (Bunch, 2011; Lopez \& McEneaney, 2012; Stewner-Manzanares, 1988). The BEA was amended in 1984 to reinforce and make clear the previous EEOA legislation (Lopez \& McEneaney, 2012; Stewner-Manzanares, 1988).

Testing for language acquisition and the provision of accommodations for ELLs have evolved as the understanding of language acquisition has developed (Hakuta, 2011; Hakuta et al., 2000). Researchers (Hakuta et al., 2000) have repeatedly refuted the onceheld belief that if a person could speak a second language, he or she was fluent in that second language. Hakuta et al. (2000) found conclusive evidence to support a distinction between two types of language development for individuals: "oral English proficiency" and "academic English proficiency" (p. 4). Oral English proficiency (social English is an accepted and interchangeable term used by researchers when discussing speaking for conversation not academic jargon [Cummins, 1982]), consisted of general conversational skills, while academic English proficiency is a complexity of syntactic and lexical codes (Hakuta et al., 2000). These two terms have since been added to the vernacular of educators and those who make educational policies (Hakuta et al., 2000).

A research report by the National Center for Educational Evaluation and Regional Assistance for the Institute of Educational Sciences documented differences between oral proficiency in English and academic English fluency (Parker et al., 2009). This research study was conducted and prepared for the U.S. Department of Education to discuss the skills needed for students to be able to achieve proficiency on a state content assessment (Parker et al., 2009). Historically, language assessments have not adequately tested ELLs for language acquisition in academics, as assessments do not differentiate between the
domains of language or content areas; many even fail to determine an individual's level of English language proficiency (Hakuta et al., 2000; Parker et al., 2009).

Language tests, such as the Language Assessment Scales (LAS), developed by De Avila and Duncan in 1978 and revised in 1991 and 1995, were created to show growth or proficiency in using primary, everyday language, not in the academic or content knowledge a student has gained while in school (Wolf et al., 2008). Linguistic testing has been conducted for decades on students in Grades K-12, but not consistently across all four domains of learning (Bunch, 2011; Hakuta et al., 2000; WIDA Consortium, 2007). Some assessments used in the past to measure language skills include the IDEA Proficiency Test (IPT), Language Proficiency Test Series (LPTS), and the Revised Maculaitis II (MAC II) (Barr, Eslami, \& Joshi, 2012). Though not an exhaustive list, a common characteristic in each assessment is that social language skills weigh more heavily than academic language in the calculation of proficiency (Barr et al., 2012).

A more modern language test, the Accessing Comprehension and Communication in English State to State (ACCESS) test for ELLs, has been developed by the WIDA. The WIDA Consortium includes 27 states and provides testing in all four domains of learning. The ACCESS score for ELLs reflects their achievement level for language acquisition and applicable academic skills in English (WIDA Consortium, 2007). Use of the ACCESS test may help districts decide what type of programs best meet the needs of their ELL populations (WIDA Consortium, 2007).

The student results from the ACCESS test, supported by the research conducted for the National Center on the Education and Economy (NCEE) and the United States Department of Education, show a relationship between ACCESS scores as a predictor of
reading, writing, and math on a large-scale assessment, the New England Common Assessment Program (NECAP), given in New Hampshire, Rhode Island, and Vermont to fifth and eighth graders (Parker et al., 2009). Tests such as the ACCESS have been generated to take into account the need to test for the more complex language of academic knowledge and not just spoken language (Parker et al., 2009; WIDA Consortium, 2007).

If a language test, such as the ACCESS, is to be used to support instruction, then discussion about its reliability and validity as a measurement instrument is important (Carroll, 1961; Lado, 1961). Lado (1961) determined a reliable language assessment would have to be valid and yield consistent scores over a period of time, without intervention. Questions arise regarding the valid and reliable use of linguistic tests as indicators of academic proficiency; as such assessments have historically addressed only the social or spoken aspects of language and have done little to help educators know the level of a student's academic English fluency (Jost, 2009; Parker et al., 2009; WIDA Consortium, 2007).

One reason school districts currently use language assessments, such as ACCESS, is to determine a student's base level of proficiency in English language knowledge (Hakuta et al., 2000; Parker et al., 2009). The ELLs' assessments ought to summarize a student's ability to understand English in any content area (Hakuta et al., 2000). Another reason to use a language assessment is to understand the level of English a student knows so as to determine strategies and accommodations to use while supporting an ELL's academic progress (Parker et al., 2009; WIDA Consortium, 2007).

English acquisition is best facilitated by a well-trained teacher, one who is aware of and integrates strategies within the classroom to help ELLs achieve proficiency in different language domains and generate content knowledge for successful outcomes on large-scale tests (Parker et al., 2009). Another important consideration is the type of learning environment that promotes best learning practices for ELLs (Jost, 2009; Parker et al., 2009). There are many types of learning environments in which to provide English instruction. Most fall under two headings: English immersion or bilingual education (Jost, 2009; National Association for Bilingual Education [NABE], 2015).

Bilingual school programs teach ELLs content knowledge in their native language as well as in English (Jost, 2009; NABE, 2015). School programs boasting immersion teach their students only in English, thus immersing them in the language (Jost, 2009; NABE, 2015). Immersion became popular in the 1980s and 1990s after policy makers and educators claimed bilingual education was not helping children to learn English proficiently (Jost, 2009). According to Chaung and Slavin (2012), while the best way to teach English is still heavily debated amongst educators and policy makers, both immersion and bilingual programs are successful in teaching students to speak and use English (Jost, 2009; NABE, 2015).

## Conceptual Framework

The conceptual framework for this study was constructed from the federal mandates of the NCLB and the language acquisition assessment called ACCESS (MODESE, 2013, 2014; WIDA Consortium, 2007). NCLB guidelines require schools to hold ELLs accountable for their learning, and ACCESS contributes to the accountability reporting for NCLB providing a developmental measurement of English language
proficiency for ELLs (MODESE, 2013, 2014; WIDA Consortium, 2007). A component of NCLB that had an impact on school districts with ELL populations is the determination of AYP, which is the system through which the state measures a school district's academic progress based on student assessment data (MODESE, 2011). Another piece of NCLB provides states funding for schools through Title III, by providing for ELLs to attain academic language and achieve at the same levels as nonELLs (MODESE, 2013, 2014). To ensure that ELLs are held to the same high achievement expectations as other students, the Annual Measurable Achievement Objectives (AMAOs) were required by NCLB (MODESE, 2013, 2014; U.S. Department of Education, n.d.b; U.S. Department of Education, 2012). The AMAOs are progress goals set by the state for ELLs in a Title III-funded school to determine English proficiency levels, set objectives for English and math, and to determine AYP (MODESE, 2011, 2013; U.S. Department of Education, 2012).

Each Missouri district is rated using AYP measures by the state's Department of Elementary and Secondary Education based on how well students perform on an end-ofyear exam (MODESE, n.d.b). In Missouri, that exam is a component of the MAP (MODESE, n.d.b). This assessment is written in English and is taken by all students in Grades 3 through 12 for reading and math, even if their native language is not English (MODESE, 2013). Established AYP targets require $95 \%$ of all ELLs to participate in the assessment (U.S. Department of Education, 2012).

Additionally, ELLs are required to progressively improve on the assessment regardless of what language they can read, write, or speak (MODESE, n.d.a; U.S. Department of Education, 2012). In other words, the high-stakes student assessment used
in Missouri does not take into account what level of English language students have acquired or if they are fluent enough to achieve proficiency according to the instrument (MODESE, 2013). More modern language tests, such as the ACCESS, have been developed to help states, schools, and teachers determine what level of academic understanding ELLs have reached (MODESE, n.d.a.; WIDA Consortium, 2007). Data from the ACCESS are divided into the four language domains to show what strengths and weakness ELLs demonstrate in English proficiency and may indicate how those students will perform on large-scale content exams (Parker et al., 2009).

Another factor in student performance on high-stakes assessments is the amount of time it takes to become fluent in English (Hakuta et al., 2000). It takes most students a number of years to become proficient in a language; three to five years are needed to develop social language, and four to seven years are typically required to reach academic proficiency in English (Hakuta et al., 2000). Linguistic assessments continue to evolve to meet the standards required by states and that truly reflect the comprehension and application of content knowledge by ELLs (Ingram, 2003). Language acquisition proficiency measures continue to change throughout the world to ensure assessments authentically measure the ability of ELLs academically, as well as socially; districts need to be able to rely on such data to guide adequate professional development and improve instruction (Ingram, 2003).

## Statement of the Problem

Since federal laws mandate that ELLs are held to statewide accountability systems, and thus state laws require ELLs to participate in high-stakes testing, proficiency in the academic use of English language is imperative for students to succeed
on large-scale assessments (U.S. Department of Education, n.d.b; U.S. Department of Education, 2014). Language assessment instruments in the past have examined the use of general social speech as a measure of academic proficiency in English (Hakuta et al., 2000; Ingram, 2003). Negative outcomes can be created by only testing social language, because a student who is able to speak a language may not always comprehend content language, since he and she is not truly proficient in English (Hakuta et al., 2000; Ingram, 2003).

Between 1980 and 2000, a time when language assessments had been developed only to evaluate social language skills, the number of ELLs rose (Bunch, 2011). The National Assessment of Educational Progress (NCES, 2010) has shown the number of ELLs continues to increase, and mandatory assessments may have a negative impact on student achievement ratings for schools. The positive consequence of improving language assessments to assess content knowledge is that assessments can be used as tools to change teaching and support students who have difficulty speaking, comprehending, and applying English (Echevarria \& Vogt, 2010).

The National Assessment of Educational Progress (NAEP) data demonstrated an achievement gap between ELLs and non-ELLs in Grades 4 and 8 on math and communication arts assessments. The NAEP data also indicated that, while the average math and reading scores improved for ELLs, the achievement gap did not change significantly between 1992 and 2009 (NCES, 2010). All states did not participate in the data gathering that occurred during the study, so the averaging of scores between those students who made gains and those who did not may be a factor that caused the gap to remain unchanged (NCES, 2010).

Districts with ELLs have an opportunity to impact student learning through programs and policies that strengthen student success in all learning domains. Whether districts use immersion or bilingual education programs, or choose another approach, their programs must be driven by data that will help district professionals understand the level of English proficiency of their ELLs (Brooks \& Thurston, 2010; Chaung \& Slavin, 2012). Informed professional development provided by districts can increase educator knowledge of best practices to facilitate learning. Teacher awareness of cultural diversities and the need for academic language fluency amongst ELLs can affect how a student performs on high-stakes tests (Bailey \& Kelly, 2013; Berg, Petron, \& Greybeck, 2012). An additional benefit for districts could be that, by understanding and targeting the diverse needs of ELLs, districts would be better positioned to meet the AYP goals set by the state.

Teachers educated about language development, testing, and instructional strategies to incorporate within their classrooms are better equipped to facilitate English fluency for their students. If educators are aware of the language assessments being used by their districts, they can guide English content learning through strategic instruction (Atchley, 2009; Cook, Boals, \& Lundberg, 2011). This study may increase the use of language assessments by districts and teachers to improve their programs of instruction for ELLs.

## Purpose of the Study

The purpose of this study was to examine the relationship between ACCESS and MAP scores and to investigate WIDA's claim that students scoring 5 or greater on the ACCESS assessment are as proficient in language as non-ELL peers. The WIDA Consortium (2007) claimed the ACCESS meets the need of providing educators
information to guide instructional program decisions and accurately predict ELLs' academic English proficiency. The WIDA Consortium (2007) further claims that ELLs who score 5 or greater on the ACCESS can be expected to understand content language in varied formats and complexity and are considered nearly as proficient as non-ELLs at applying grade-level knowledge .

Archival data for Grades 3 through 8 were obtained from a district with an average population of ELLs of $50 \%$ or higher (MODESE, n.d.c). Grades 3 through 8 were selected because these students take both the MAP and the ACCESS exams (MODESE, 2013; WIDA Consortium, 2007). The proficiency rate of ELLs versus their non-ELL peers on a content assessment were compared to determine if an ACCESS scale score for proficiency indicated MAP scores performance equivalent to the proficiency rate of non-ELLs (MODESE, 2013; WIDA Consortium, 2007).

The relationship between an ELL's performance on his or her ACCESS assessment and MAP communication arts achievement was considered for this study. Additionally, the relationship between an ELL's performance on his or her ACCESS test and MAP math assessment was investigated. This study may increase the use of language assessments by districts seeking to improve their instructional approaches toward ELLs.

Analyzing the relationship between the MAP and the ACCESS exams is imperative to know if the tool being used to measure linguistic acquisition is accurate. As the number of ELLs rises and the pressure to meet AYP puts a strain on public schools, it is necessary to use assessments that will be efficient, effective, and financially sound (MODESE, 2011).

Research questions. The following research questions guided the study:

1. What is the relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages?
2. What is the relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
3. What is the relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
4. What is the difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?
5. What is the difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and nonEnglish Language Learners, as measured by achievement levels, scale scores, and index scores?

Null hypotheses. This is designated by the symbol $H_{0}$.
$H 1_{0}$ : There is no statistically significant relationship between an English
Language Learner's composite reading and overall achievement on the MAP
communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.
$H 2_{0}$ : There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 3_{0}$ : There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 40$ : There is no statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$H 5_{0}$ : There is no statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

Alternative hypotheses. This is represented by the symbol $H_{a}$.
$H 1_{a}$ : There is a statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.
$H 2_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 3_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$\mathrm{H}_{\mathrm{a}}$ : There is a statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$H 5_{a}$ : There is a statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

## Definitions of Key Terms

The following terms are included in this study:
Adequate Yearly Progress (AYP). A set of targets put into place by the federal government through the NCLB of 2001 which mandated all districts/local education agencies (LEAs) to show that annual academic goals are being met. The targets were established by the MODESE through the analysis of data compiled from the MAP. There were three targets required by law:

1. Annual Proficiency Target: A set target for all students, including subgroups, to meet over time, with an expected outcome of all students scoring at or above the proficient level on the state's assessment.
2. Attendance/Graduation Rates: Attendance and graduation rates shall continue to improve and meet the established targets.
3. Participation Rates: A $95 \%$ participation rate shall be met by all students and subgroups of students. (MODESE, 2013, p. 3)

Annual Measurable Achievement Objectives (AMAOs). Goals set by the states to measure the gains in the language proficiency of English (MODESE, 2013, 2014; U.S. Department of Education, 2012).

Assessing Comprehension and Communication in English State to State
(ACCESS). This is the language proficiency assessment used by 27 American states for ELLs. This assessment measures gains in language development annually. The WIDA Consortium has established performance definitions and levels have been established by the WIDA Consortium using a scale of 1-6. Level 6 represents students who have reached equivalency with their English-proficient peers in the academic application of the English language (MODESE, n.d.a; WIDA Consortium, 2007).

Bilingual. When a person fluently speaks two languages at the same time, he or she is considered bilingual ("Bilingual," 2015).

Comprehensive scale score for ACCESS. Score that reflects a student's understanding of oral and written English (WIDA Consortium, 2007).

English Language Learners (ELLs). Individuals who require education in the English language so they can understand the vocabulary of academic content (MODESE, n.d.a). For the purpose of this study, this term will represent English Language Learners.

Formative Language Assessment Records for English Language Learners (FLARE). A plan supported by the Carnegie Corporation of New York to develop and validate a formative assessment system for ELLs to help educators of secondary students to measure language proficiency (Formative Language Assessment Records for ELLs, 2011).

Immersion education. The practice of exclusively using a second language to teach the language to be acquired or another foreign language ("Immersion Education," 2015).

Language Assessment Scales (LAS). A linguistic progress monitoring assessment developed by De'Avila and Duncan in 1978 and revised both in 1991 and 1995 (Snow \& Ven Hemel, 2008).

Limited English Proficient (LEP). A person who has little or no ability to write in or orally use English (MODESE, 2013).

Linguistic. "[O]f or relating to language or linguistics" ("Linguistic," 2015, para. 1). Linguistics is the scientific study of language, including phonetics, phonology, morphology, syntax, semantics, pragmatics, etc. ("Linguistics," 2015).

Overall scale score. A composite score of all reading, writing, listening, and speaking scores on the ACCESS (WIDA Consortium, 2007).

Student roster report. Lists scale scores and proficiency levels by grade level (WIDA Consortium, 2007).

World-Class Instructional Design and Assessment (WIDA) Consortium. The WIDA develops assessments to increase academic language for culturally diverse students with data collected through research to impact instruction for educators (WIDA Consortium, 2007).

## Limitations

The following were recognized as limitations of this study:
Several variables were not controlled in this study, such as the facilitation of the ACCESS or MAP test by district teachers. No considerations were given to the experience of the educators in teaching ELLs in the participating district. The growth or progress students made within the years of testing for these two assessments were not considered in this study. Assumed was the validity of statements made by Research Director and FLARE Principal Investigator for WIDA, Dr. H. Gary Cook. His opinions and advice were offered with honesty and without bias in his knowledge of this type of research.

The practice of language testing has been a part of the history of U.S. schools for years. Until the 1980s, language was considered to consist of the vocabulary and grammar one spoke to convey a message or communicate needs. In the past, it was considered an acceptable avenue to explore literature, "a human instrument of communication," on the basis of syntax, morphological and grammatical structures, phonological applications, and lexicons (Carroll, 1961, p. 319). The practice of linguistic assessment has long been a part of this nation.

However, the contributions of historical and current research for the use of assessing language, according to Hakuta and Jacks, emphasized the importance of
continued learning for what constitutes language and its use in the educational system (as cited in Pitoniak et al., 2009). The most current research for this study contained numerous references to historical works. In order to be thorough, the review of literature contains both current and historical references that align with the key topics in this study. All written actions to maintain the integrity of historical information were attempted.

Sample demographics. The sample demographics consisted of and were limited to those ELLs who took both the ACCESS and MAP and non-ELLS who took the MAP during the 2010-2011 and 2011-2012 school years in a rural setting. A random sample was used to choose student data to be analyzed. This type of sample is a selection of randomly chosen participants of the total population (Bluman, 2010). If participants did not have a score for either exam, they were deleted from the random selection process. Retrieved data were from two schools in one district, so this study is particular to its demographics.

Instrument. Archival data for 2011 and 2012 were obtained from two sources for the purpose of analysis for this study. One source was the Student Report Roster containing scale scores and levels of proficiency from the ACCESS test taken by ELLs of designated schools. The other source was the MAP data containing reading and math composite scores. Data were obtained from the designated district by retrieval from the MODESE website. Names and data were protected through a coding system to ensure confidentiality and anonymity of all individuals and educators involved in the study.

## Summary

The importance and growing practice of language testing to determine English proficiency for ELLs in schools has created a need to redefine the intentions of a
language exam (Cook et al., 2011; Parker et al., 2009). With pressures from federal and state mandates to have every student attain proficiency on large-scale tests, a better understanding of subgroups and how they learn is imperative (MODESE, 2013).

Districts using federal monies through Title III are obligated to show all students make academic gains and are prepared for graduation, a career, and/or college (U.S. Department of Education, 2012).

By use of a quantitative study, the relationship between a national language proficiency test and a state assessment was examined. Most studies referenced deal with the growth of a student's learning. This study did not determine if students have made growth but rather sought to determine if a proficiency score on a national language proficiency test predicts a proficiency score on a high-stakes content test. Specifically, this study determined if there is a correlation between the proficiency level achieved by ELLs on the language test and the proficiency level achieved by the same group on state content assessments.

Also considered were the differences between the rates of proficiency of ELLs who scored greater than 5 and their non-ELL peers in both communication arts and math on a state exam. The possible outcomes were analyzed by comparing the scale scores of ELLs and non-ELLs on both tests. Student data were analyzed for the school years 20102011 and 2011-2012 to assess composite scale scores on the state exam and correlate those to the overall language scale scores for levels of language proficiency.

In Chapter Two, a review of related literature is presented. The review of literature on ELL proficiency levels for both large-scale and language assessments was delineated into the following topics: historical perspectives and remaking of language
testing; mandates and initiatives that have influenced accountability; and the impact on school districts, teachers, and students (Honigsfeld \& Giouroukakis, 2011; Kieffer, Lesaux, Rivera, \& Francis, 2009; Menken, 2006). Also considered in the literature review were prior views on which environments, immersion or bilingual, are best for attaining English language for a student. Next was a look at current methods and strategies (Echevarria \& Vogt, 2010; Helfrich \& Bosh, 2011) that contribute to instruction for ELLs in terms of the fluency in English needed to apply and achieve academic knowledge. Concluding this chapter was the impact of using language testing in an educational setting.

A description of how the data were collected and the methodology of the study are detailed in Chapter Three. Descriptive information about the population, sample, and instruments used to gather data are discussed. All assumptions, considerations of ethical practices, and data analysis are presented in Chapter Four. The five research questions were analyzed according to the data using Excel (Version 2007 for Windows). The research study is summarized in Chapter Five; the results and conclusions are revealed, as well as recommendations for further research based on the findings.

## Chapter Two: Review of Literature

The use of language testing to help determine how well a student knows and can apply a second language is widespread in the schools of today, but that has not always been the case. Historically, language testing formats have examined a student's social communication abilities, rarely considering how language acquisition affected academic application (Bunch, 2011). As more immigrants and children of immigrants entered the public school system, the need for language testing became more prevalent (Hakuta, 2011).

Language testing received little attention until the 1960s ushered in civil rights reforms (Bunch, 2011). The challenge to the nation to provide education for all groups of children helped to establish laws such as Elementary and Secondary Education Act (ESEA) and the Bilingual Education Act (BEA) (Bunch, 2011). Many language and behavior experts developed linguistic tests to monitor language proficiency.

Behaviorist Skinner proposed and designed a discrete point system to test a learner's linguistic ability in isolated areas (McGarrell, 1981). Chomsky, known as the father of linguistics, proposed an assessment that was based upon an individual's ability to communicate proficiently (Cohen, 1992; Richards, 2001). In the 1970s, Hymes, the linguist known for establishing the fundamentals of comparative, ethnographic language study, promoted the notion that speaking a language equated fluency; to Hymes, social acquisition of a language was as important as grammatical fluency in English (McGarrell, 1981). All of these perspectives helped to develop better instructional practices, but the practices had little influence on language testing to see if students could not only speak English but use it in an academic setting. Hinkel (2010) determined, "the disconnect
between the foci of integrated instruction and the means of testing language proficiency as well as the mastery of communication skills gave rise to strong demands for similarly integrative tests and testing" (p. 17).

Until the 1990s, language testing methods remained static and socially-based, without integrating all four domains of learning (Hinkel, 2010). The rapid influx of foreign students into public schools brought new thinking about the need for academic language fluency testing (Cummins, 1982; Hinkel, 2010; Roessingh, 2006). Cummins (1982) distinguished between social and academics language skills and named them Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALPS). The BICS defined the social language acquired by ELLs (Cummins, 1982). The CALPS is the academic language skill set obtained through the four domains of learning. This distinction between social and academic language skills helped to advance changes in language testing (Cummins, 1982; Roessingh, 2006).

As the country examined its educational system, new laws were written and ELLs were demanded to be held as accountable as their non-ELL peers are to each state's highstakes assessment standards (MODESE, n.d.c; U.S. Department of Education, 2014). School funding and accreditation were tied to how well students performed on state assessments, so the subgroup of English learners became a high-interest demographic (MODESE, n.d.c). Districts purchased pre-made language tests to meet the regulations of state educational departments, as NCLB standards did not provide explicit requirements to learn English language within the content areas. The simple expectation was for English comprehension to occur (Bunch, 2011; MODESE, n.d.c).

## Influences on Schools: Federal and State Mandates and Initiatives

In 2001, the NCLB legislation was mandated. Measures of proficiency for English language learning were established, and these included a focus on comprehension in the four learning domains. Standards included in the legislation required that ELLs acquire English while being successful on the state content area exams (Gándara, 2011). After federal mandates required all testing be conducted in English, laws were passed by states, such as California, to require all classroom instruction to be delivered in English (Gándara, 2011; Gándara \& Baca, 2008).

The reduction of the learning gap between non-ELLs and ELLs became a priority for schools (California Department of Education, 2013). Relevant to this discussion is the National Assessment of Educational Progress (NAEP), also known also as the Nation's Report Card, and its shaping of language tests (NCES, 2010). Section 3121 of the NCLB Act of 2001 pertained specifically to the evaluation of ELLs and their English proficiency:
(d) EVALUATION MEASURES. -A state shall approve evaluation measures for use under subsection(c) that are designed to assess - (1) the progress of children in attaining English proficiency, including a child's level of comprehension, speaking, listening, reading and writing skills in English; (2) student attainment of challenging State student academic achievement standards on assessments described in section 1111(b)(3); and (3) progress in meeting the annual measurable achievement objectives described in section 3122. ("No Child Left Behind," 2002, 115 Stat. 1702)

Clarification requirements for language testing were set and expectations revealed for ELLs to be held as accountable as their non-ELL counterparts on the state academic content tests mandated by NCLB.

The NCLB Act funded grants for states to write language tests that would meet evaluation standards. Consortiums were formed with a lead state and non-state agency to develop assessments that met requirements of Sections 3121 and 3122 (Bunch, 2011). While each of the state content tests are similar, differences were dependent upon the state writing the language testing documents (Bunch, 2011; Honigsfeld, \& Giouroukakis, 2011; Kieffer et al., 2009; Menken, 2006).

## Attaining English as a Student: Bilingual Versus Immersion Environment

The school work of a second language learner is multiplied by the pressure to do well on exams written in English. Perspectives on how language is developed and what is the best way to attain a second language are controversial in both the political and educational worlds (Jost, 2009). Debates on which method, bilingual or immersion, is the best approach has continually plagued institutions and the political realm throughout history (Jost, 2009). As ELL populations increased in school settings, teaching English became a priority (Bunch, 2011; Hakuta et al., 2000; Jost, 2009). Students needed to pass exams written in English, so various instructional methods and strategies have been studied as educators try to help ELLs apply the language for learning (Jost, 2009).

As the population of ELLs increased in the classroom, the bilingual method was initially highly favored and supported by state authorities to promote English learning (Bunch, 2011). Defined by the United States Department of Education (n.d.b), Section 7501, a bilingual person is someone between the ages of three and 21 , whose dominant
language is that other than English, is not born within the states, and whose difficulties in understanding, writing, speaking, or reading in English may deny the individual the ability to learn if instruction is delivered in English.

In a study of Spanish-speaking students titled, "Facilitating Acquisition of Young English Language Learners," research was conducted to see if there was a difference in achievement for students who are taught only in English or those supported with Spanish while learning in English (Lugo-Neris, Jackson, \& Goldstein, 2010). The results showed students who had English instruction bridged with Spanish retained more vocabulary, had better expressive output, and made larger academic gains (Lugo-Neris et al., 2010).

Those supporting bilingual education believe combining both native language and second language learning is the only way to ensure successful life-long education (LugoNeris et al., 2010). Professor at the University of Texas-Pan American and President of the National Association for Bilingual Education, Ruiz-Escalante, stated, "We have gone backwards on educating non-English speakers...[opponents] are in such a hurry for students to speak English that we're not paying attention to their cognitive development" (as cited in Jost, 2009, p. 1031). Research conducted in 2004 emphatically supported the bilingual method over immersion (Collier \& Thomas, 2004).

Collier and Thomas (2004), both from George Mason University, conducted a longitudinal study that supported the theory that ELLs taught classes in both their native language and English sustained academic gains through high school. Additionally, the study showed students who were taught using both languages had outcomes that closed achievement gaps, one of the two main concepts (closing the gap between achievement levels and disaggregation) required by NCLB (Collier \& Thomas, 2004). Evidence that
bilingual education instruction works was advocated by several researchers, arguing that ELL performance in reading in their native tongue can predict their success at applying reading skills in English (August \& Shanahan, 2006; Garcia, 2000; Reese, Garnier, Gallimore, \& Goldenberg, 2000). Advocates of bilingual education, Collier and Thomas (2004) held firm that while "the curricular mainstream [immersion education] may appear to speed their children's acquisition of basic English, it does not lead to long-term academic success in English" (p. 16).

Supporters of immersion education and opponents of educating ELLs in a bilingual setting argued that students are better prepared for learning if they are exposed to intensive English instruction or are immersed in the language (Jost, 2009). Opponents of bilingual education also disputed the closing of the achievement gap through a bilingual approach and claimed such an approach actually delays English proficiency (Jost, 2009). Advocates for the immersion model felt students become a part of the school community more quickly and improve their linguistic fluency more efficiently through immersion (Jost, 2009). Immersion education supporters' voices became more powerful when, in 2000, California residents voted in Proposition 203 (rejecting bilingual education), as test results showed students in immersion programs experienced larger academic gains (Jost, 2009).

A landmark Supreme Court case, Horne v. Flores (2009), strengthened the ideological shift of instructional direction from bilingual to immersion. The court found this case to provide the documentation needed to prove that immersion in English in school was more effective than a bilingual program (Horne v. Flores, 2009). In the 1990s, the Ramirez report was released by former president George W. Bush; the study
was conducted during Ronald Reagan's presidential administration but was withheld from the public during that time, as Reagan was a known opponent of bilingual education (Jost, 2009). In the report, immersion education was announced as the program most effective for instructing ELLs (Jost, 2009). This study looked at the three most common programs used to instruct language: early-exit bilingual, late-exit bilingual, and immersion education (Jost, 2009).

Later, bilingual study advocates would discover that the study found the late-exit bilingual program exceeded progress expectations regardless of the method used to instruct ELLs (Jost, 2009). Professor Hakuta of Stanford University claimed, "the problems of English-language learners persist whether it's English-only or bilingual education" (Jost, 2009, p. 1033). Current research "suggests that the quality of instruction may be more important than the language of instruction" (Chaung \& Slavin, 2012, p. 4), and "all possible approaches to enhance [learning] outcomes should be considered" (Chaung \& Slavin, 2012, p. 27).

Researchers believed the key to the cognitive development of academic language is explicit, consistent, and quality instruction facilitated by an educator who is conscious of the value of cultures and has an understanding of the methods and skills to teach an ELL student (August \& Hakuta, 1997; Chaung \& Slavin, 2012; Slavin, Maddin, Calderón, Chamberlain, \& Hennessy, 2011). In Hakuta's research to examine why some schools better prepare ELLs than others, he found conclusive evidence that professional development for educators, the prioritization of student achievement, availability of student resources, and fidelity of data use were keys to their success (Christie, 2008).

As educators began learning how to teach a second language and language tests became more available, the methodology of bilingual education was being questioned (Hakuta, 2011; National Clearinghouse for English Language Acquisition [NCELA], 2011). The foremost purpose of the Bilingual Education Act (BEA) written during the height of the civil rights movement was to provide grants to help schools develop English learning opportunities for ELLs (NCELA, 2011). As years passed, changes were inevitable, especially in response to the Equal Educational Opportunity Act and the case of Lau v. Nichols (NCELA, 2011).

Concentration on defining an ELL, what kind of professional development was needed for teachers, and reforming the grant program occurred mainly in Canada throughout the restructuring of the BEA (Hakuta, 2011; NCELA, 2011). The United States had little bearing on these changes, as few educational agencies were researching how bilingual education was affecting students (Hakuta, 2011). The BEA was renamed Title III Part A and ESEA had been reauthorized as NCLB, with changes made to reflect the needs and accountability requirements for ELLs and their educators (Office of Superintendent of Public Instruction, n.d).

As part of the NCLB, current changes made to Title III reflect no specified methodology for teaching English to ELL students (MODESE, 2013). Since federal regulations, set by the U.S. Department of Education's Office for Civil Rights, did not specify preferred ideologies for teaching ELLs, educational policy trends often drove how state and local administrators approached this task (California Department of Education, 2013; NCELA, 2011). The BEA promoted bilingual education as its primary methodology when it was adopted in 1968 (California Department of Education, 2013;

NCELA, 2011). The difference between the BEA and Title III Part A was the significant emphasis placed on professional development and accountability through NCLB P.L. 107-110, 115, Statute 1425, also known as Annual Measurable Achievement Objectives (AMAOs) for ELL learning (MODESE, 2013, 2014; U.S. Department of Education, 2012).

Bilingual and alternative methodologies were encouraged for language learning through the BEA. Title III legislation emphasizes English instruction and fluent acquisition of the language as quickly as possible (MODESE, 2013, 2014). Once students proved proficiency in English, according to state assessments, such as the MAP, extra services and assessments were no longer required, and ELLs were to be mainstreamed into the regular educational program (MODESE, n.d.b, 2013). The thorough and ordered structure provided by Title III was argued by many in favor of bilingual education to be a more fair way to monitor ELLs' progress, while opponents disagreed (Fairbairn \& Fox, 2009).

The opinions held by those in opposition to Title III asserted that assessments do not benefit nor show an ELL's true academic or linguistic achievements (Fairbairn \& Fox, 2009). The question about language acquisition programs and their use was not if ELLs should learn English, but whether or not the policies to support and "address the needs" of those students were being served (Lopez \& McEneaney, 2012, p. 426). As debates continued, both politically and in the educational realm, the ELL population continued to grow in the United States; classroom teachers must be prepared to work with these students, and must still meet the federal and state mandates (U.S. Department of Education, n.d.b, 2012, 2014).

## Contributions to Instruction for ELLs: Methods and Strategies

Emerging from the Civil Rights era, the educational system was obligated to reform to meet the needs of the rising numbers of culturally diverse students (Bunch, 2011). Cases, such as Lau v. Nichols (1974), created equal opportunities while differentiating for the needs of individuals in education. Educational policy was transformed with differentiated instructional methods and strategies (Bunch, 2011). This reform created criticism while increasing differences between the instruction of ELLs and their peers (Lopez \& McEneaney, 2012; Reeves, 2004).

The pressure to meet language instruction needs of ELLs, while meeting federal and state mandates, in addition to teaching daily lessons, added stress to educators. Methods and strategies that teachers had relied upon for decades were not supporting ELLs when it came to the application of academic English (Hakuta et al., 2000). Conversational English skills improved as ELLs remained in the school setting, but the inability of many of these students to be proficient on high-stakes assessments led the country to believe education was failing, as demonstrated in the report, A Nation at Risk, published in April 1983 (U.S. Department of Education, n.d.a). This report led to a plethora of changes for schools: new standards were developed at the national level, and teachers and administrators were held more accountable for the academic growth of ELLs than ever before (U.S. Department of Education, n.d.a). A Nation at Risk also increased the public's awareness of how schools were operating and what their students were being taught (U.S. Department of Education, n.d.a).

Traditionally, public institutions of learning have focused on grammatical structures as a path to teaching language to students (Huang, 2010). Grammar rules were
followed and the memorization of vocabulary lists was the foundation of learning the English language, whether one was a native speaker or not (Huang, 2010). Social language was presented in highly structured sequence forms, to allow non-English speaking students to memorize dialogues and utilize repetition (Huang, 2010).

Archaic teaching practices required students to listen to a lecture or read a passage, be tested, and begin the cycle again (Lombardi, 2008). Emphasis was placed on the teacher as a provider of the knowledge and the student as the receiver (Lombardi, 2008). As the United States made reforms following the A Nation at Risk report, the focus for language acquisition changed and new methods and strategies were developed to contribute to instruction for academic growth and ELL fluency in English (Lombardi, 2008).

These changes opened the doors for research into other ways to instruct ELLs to be successful with academic language achievement. Krashen, in 1981, developed the input hypothesis that predicted that as long as ELLs receive language input that is higher than their current proficiency level and challenges them to think, they would not need to focus on the form of language; usage and application of the second language would lead to fluency. Krashen stated, "Language acquisition does not require extensive use of conscious grammatical rules, and does not require tedious drill" (as cited in Schütz, 2014, para. 1).

Krashen (1981) also conceived the term sheltered English, which referred to the utilization of native language for direct instruction, with a focus on English acquisition for academic-specific instruction. In a sheltered English setting, ELLs with similar language proficiencies can be grouped together to support one another's linguistic
development through use of their social language, rather than rote learning of grammatical rules (Krashen, 1981). Researchers, such as Jana Echevarria and MaryEllen Vogt (2010), promoted learning a second language as meaning-oriented communication, but also focused on the language form to help clarify misconceptions as well as provide explicit and contextualized instruction for English learners. Language acquisition barriers could be lessened by incorporating the ELL's culture in everyday instruction and building cognitive connections through this opportunity (Helfrich \& Bosh, 2011; Honigsfeld \& Giouroukakis, 2011; Walker-Dalhouse \& Risko, 2008).

Modeling proficient language is also important in supporting ELL language acquisition through clear, repetitive instruction expressed and demonstrated in a variety of ways (Helfrich \& Bosh, 2011). Explicit instruction in vocabulary is necessary and taught through pictures connected to the student's native language and the allotment of ample time for students to practice using the words (Echevarria \& Vogt, 2010; Helfrich \& Bosh, 2011; Roth, 1999).

One of the four domains of learning is speaking, and speech is as imperative for student language development as reading, writing, or listening to words (Helfrich \& Bosh, 2011). Use of discussion in ELL instruction is essential to the development of language fluency and retention (Helfrich \& Bosh, 2011). ELLs who used discussion during their lessons had an opportunity to attach their experiences, contribute to class knowledge, and scaffold their learning (Helfrich \& Bosh, 2011). Academic language and social language are both necessary for ELLs to acquire a second language and apply it to their lessons and assessments (Short \& Echevarria, 2005). Use of the Sheltered Instruction Observation Protocol (SIOP) methods developed by Short, from the Center
for Applied Linguistics and Echevarria of the California State University, Long Beach, helped support teachers in improving their accommodations and instructional approaches for ELLs to acquire social and academic English (Short \& Echevarria, 2005).

Quality instructional methods for ELLs are parallel to those for non-ELLs, but ELLs require additional support to succeed at the academic level and require instructional accommodations as mandated by NCLB (Goldenberg, 2008; Short \& Echevarria, 2005). Methods to integrate into daily instruction, as suggested by Echevarria and Vogt (2010) and Short (2000) included the following: modeling, demonstration, visual aids, cooperative learning, adaptations of texts, explicit vocabulary instruction, infrequent use of idioms, discussion, and clear enunciation. A variable that affects ELL academic success is high-quality instruction from teachers (Echevarria \& Vogt, 2010; Short, 2000).

NCLB mandated that all teachers be highly qualified to instruct all students (MODESE, 2014). NCLB, however, did not require educators to be trained in ELL instruction, methods, or language development (Short \& Echevarria, 2005). Until the late 1990s, little research had been conducted to pinpoint methods for specific instruction of ELLs (August \& Hakuta, 1997) until the SIOP model was developed through a research study conducted from 1996-2003 (Short, Echevarria, \& Richards-Tutor, 2011) that involved sheltered instruction. Sheltered instruction is a method used to promote student engagement and quality lessons, higher-order thinking, and differentiation of instruction (Abadiano \& Turner, 2002; Hansen-Thomas, 2008; Roth, 1999).

Teachers receiving professional development using SIOP for ELL instruction in their school districts can provide training in activating and strengthening background knowledge, encouraging social and academic discussions, reviewing and emphasizing
vocabulary within the content, and using local jargon to promote student and school success (Short \& Echevarria, 2005). In a New Jersey study conducted by the Center for Applied Linguistics to see if SIOP professional development helped teachers become better instructors, it was found that "professional development had a positive effect on teacher implementation and student achievement in oral language, writing, and English proficiency for ELLs" (Short et al., 2011, p. 375).

A research study published in 2012 for the Center for American Progress, by Samson and Collins, remarked how NCLB, politicians, and the nation in general rarely debate what a highly qualified educator represents for diverse sets of students. With unique and diverse students becoming the norm in school populations, all teachers need to have the skills, methods, and knowledge to be able to instruct students acquiring English (Hansen-Thomas, 2008; Samson \& Collins, 2012). Given the importance of ELLs success on high-stakes assessments per NCLB, professional development for all classroom teachers must be specific and continuous throughout the school year, to promote understanding of the best practices that will sustain learning for the diversity of cultures permeating public schools (Hansen-Thomas, 2008; Helfrich \& Bosh, 2011; Samson \& Collins, 2012).

Another factor for improving ELL achievement outcomes is continued professional development and support for educators. Training teachers to know the difference between social speech and academic language proficiency so they can be more effective facilitators of learning is vital for addressing the linguistic challenges ELLs face at school (Araujo 2009; Echevarria \& Vogt, 2010; Samson \& Collins, 2012; Short \& Echevarria, 2005).

## Professional Development for Educators

To improve an ELL's retention of lessons, teachers can acquire a variety of skills and strategies: oral language proficiency for use during academic discussions, vocabulary strategies, use of cues (such as visual aids, gestures, or numbers), use of repetition, routines, feedback, articulating, hands-on projects, valuing cultural diversity, and explicit instruction (Araujo, 2009; Echevarria \& Vogt, 2010; Samson \& Collins, 2012; Short \& Echevarria, 2005). In a quasi-experimental study conducted by the Marzano Research Labatory to see if specific teaching strategies were effective in helping students learn, researchers found that students gained, on the average, six percentile points more when their teachers used these instructional strategies (Haystead \& Marzano, 2009). Instructional strategies, such as vocabulary building, use of pictures or visual aids, and student discussion were components of the independent study that demonstrated the highest effect on student progress (Haystead \& Marzano, 2009). These practices are not always taught in teacher-education programs, so districts must provide continued professional development across content areas to help educators become highly-qualified and quality teachers to students learning English (Araujo, 2009; Echevarria \& Vogt, 2010; Helfrich \& Bosh, 2011; Samson \& Collins, 2012; Short \& Echevarria, 2005).

The 1988 BEA emphasized professional development for educators as well as families of ELLs (Stewner-Manzanares, 1988). As reforms have reflected the public opinion on how to accommodate instruction for ELLs, and laws have evolved to be more specific to meet those needs, districts must provide methods, strategies, and professional development to reach academic success and English proficiency for all students (Brooks \& Thurston, 2010; Lopez \& McEneaney, 2012; Stewner-Manzanares, 1988).

## Assessing English Language Learners

Prior to NCLB, standards for ELLs did not exist and their language needs were not considered (Bailey \& Huang, 2011; Short, 2000). With the lack of English-learner standards in the United States, in 1997, Teaching English to Speakers of Other Languages or Teachers of English to Speakers of Other Languages (TESOL), developed the ESL Standards for Pre-K-12 students (Bailey \& Huang, 2011). The TESOL standards were created to encompass three goals that flowed around socially acceptable use of communication (Bailey \& Huang, 2011).

It was not until 2004, when WIDA created ELP Standards, that language goals were incorporated with content goals (Bailey \& Huang, 2011). As mandates for NCLB became law, attention to standards for ELLs were reformed, and new ways to assess for language proficiency were a valid concern (Bailey \& Huang, 2011). Language proficiency assessments had historically not been for education equality, but more to ease the anxieties that grew out of the Civil Rights era (Figueroa, 1990; Figueroa \& Hernandez, 2000). These linguistic tests were often used to indicate lower intelligence and to assimilate ELLs into English-only speakers (Figueroa, 1990; Figueroa \& Hernandez, 2000). This led toward more authenticity of language assessments, and their primary purpose was to have students reach proficiency in English so they would score well on the state assessments mandated by NCLB (Bailey \& Huang, 2011).

The role of assessment in a classroom is critical to determine an ELL's proficiency in academic content, so teachers can facilitate development of all four language domains (Hinkel, 2010; Lavadenz, 2010). Educators must recognize a student's level of content knowledge in order to facilitate the process of connecting printed word
and their comprehension of the meaning of words used during instruction and assessment (Bifuh-Ambe, 2011; Lavadenz, 2010). Grammatical form is no longer the focus of developing English skills, because ELLs have not developed a cognitive understanding of English standards of grammar usage (Berg et al., 2012; Echevarria \& Vogt, 2010; Lavadenz, 2010; Short, 2000). Therefore, "what matters most in the education of ELLs is the quality of instruction, not the language of instruction" (Chuang \& Slavin, 2012, p. 4).

A more current focus is on the meaning of words and comprehension of the language in communication, integrating the four domains of language, and applying academic skills on assessments to meet the demands of NCLB (Echevarria \& Vogt, 2010; Hinkel, 2010; Krashen, 1982; MODESE, n.d.b, n.d.c; Short, 2000). Traditional assessments are as much a test of English as they are of academic content (Berg et al., 2012; Solano-Flores, 2008). Answering questions from a traditional format can present challenges and not accurately show an ELL's knowledge of the content being assessed (Berg et al., 2012; Chuang \& Slavin, 2012).

Once a second language is fluently achieved, a valid and reliable score can be obtained with ELLs; however, while ELLs are still acquiring another language, test scores will under-estimate their real achievement on a content exam (Collier \& Thomas, 2004). Use of assessment scores and data provides a look at academic weaknesses and strengths for ELLs so teachers can apply to instructional and lesson planning (Collier \& Thomas, 2004). Carroll (1961) determined, "The purpose of testing is always to render information to aid in making intelligent decisions about possible courses of action. ...at the end, achievement tests are given to ascertain progress and to diagnose learning difficulties" (p. 314).

The WIDA developed English Language Proficiency (ELP) standards in 2006 that TESOL adopted, to serve as a way to test comprehension and communication in English and serve as an accountability assessment for states under NCLB (Bailey \& Huang, 2011). The ELP Standards assess the four domains of learning for ELLs with a focus on academic language acquisition (Bailey \& Huang, 2011; Llosa, 2011; WIDA Consortium, 2007). The purpose of the WIDA, ACCESS, is to represent language learning outcomes; however, the assessment is not a guide for how to teach (Llosa, 2011; WIDA Consortium, 2007).

## Valid Testing of English Language Learners

Valid testing cannot be achieved if the focus is solely on the proficiency of ELLs in English; therefore, linguistic factors involved in the development, administration, and scoring of tests must be examined (Solano-Flores, 2008). In the preface of the Guidelines for the Assessment of English Language Learners (Pitoniak et al., 2009), Hakuta stated that the key to improving learning for ELLs is for assessments to be valid and fair. In this way, the NCLB-mandated subgroup of ELLs can perform well on state exams and meet AYP. A concern that may arise when testing ELLs is whether the content area assessment measures the skills they have been taught or their language proficiency (Pitoniak et al., 2009).

In order to keep assessments as valid and reliable sources to guide instruction, educators must consider several factors when developing exams for ELLs (Pitoniak et al., 2009). Cultural, language, and educational factors have an influence on student achievement on assessments (Pitoniak et al., 2009). Cultural levels of understanding American values and beliefs can impact how ELLs perform on assessments (Pitoniak et
al., 2009). Language factors must be considered for assessing ELLs and include a student's ability to use the second language and to what degree (Pitoniak et al., 2009). Also, ELLs' backgrounds and knowledge of their native language may not be proficient, which could impede their learning (Pitoniak et al., 2009). Levels of native education, exposure to English education, and experience with formal testing are all educational factors that influence how ELLs perform in school and on mandated state assessments (Pitoniak et al., 2009).

In order to prepare quality, valid, and fair assessments, there must be a clear purpose for testing, and ELLs must be given accommodations so the assessment does not test for language but for content (Pitoniak et al., 2009). Under NCLB, the current testing system is complex because of all the extraneous factors that characterize ELLs (Pappamihiel \& Walser, 2009; Pitoniak et al., 2009) and few accommodations are given. However, some research has indicated there is little evidence that using accommodations for an ELL when testing on a high-stakes assessment is beneficial (Kieffer et al., 2009). Few argued whether ELLs should be accountable for their learning; the argument stems from how to make the accountability systems authentic and fair (Hinkel, 2010; Pappamihiel \& Walser, 2009).

ELLs not only have to acquire social English while attending school, they must also learn academic English in order to achieve on complex tests, which gives them a disadvantage when compared to their non-ELL peers (Pappamihiel \& Walser, 2009). The NCLB Act mandated ELLs new to the country who are attending school be tested in math and science, but excludes their results from the district AYP reports for only one year (Pappamihiel \& Walser, 2009; U.S. Department of Education, n.d.b). Research has
shown that it takes ELLs five to seven years to become as proficient in academic English as their counterparts (Hakuta et al., 2000). The reliability and validity is questioned when using high-stakes assessments, taught mostly in English, to indicate an ELL's actual content knowledge, when students are only being give a year to acquire proficient language (August \& Hakuta, 1997; Pappamihiel \& Walser, 2009).

Language assessment and language development in the past were often considered independent variables of class instruction, but as research continued to improve understanding of linguistics, assessment and instruction were found to be intertwined (Lantolf, 2009; Lantolf \& Poehner, 2011). The understanding of how humans communicate and apply that knowledge has increased the validity and reliability of language testing, as it has developed over time, to drive the awareness of teaching and use of linguistic analysis to support ELL learning (Behrahi, 2010). The eventual purpose of learning a language is the ability to use it, fluently comprehend what is being spoken, and apply it to any context (Pang, 2012). Academic achievement for ELLs can only be successful if united with long-term support to develop language as suggested by research (Cook et al., 2011). Valid assessments of ELLs cannot be attained if only proficiency in social English is considered (Solano-Flores, 2008). Other factors must be considered for the development and effective administration of tests (Solano-Flores, 2008).

Research dating back to Lev Vygotsky's development of Zone of Proximal Development (ZPD) supported the idea that quality assessments and instruction function as one (Lantolf, 2009; Lantolf \& Poehner, 2011; Poehner \& Lantolf, 2005). The ZPD is the difference between an individual's ability to learn something on one's own or with intervention (Lantolf, 2009; Lantolf \& Poehner, 2011). Applying the intervention gives
the individual the ability to build on personal knowledge and provides the educator with information to diagnose a student's learning potential (Lantolf, 2009; Lantolf \& Poehner, 2011).

The ZPD was coined "dynamic assessment" (DA) by Vygotsky's colleague, Alexander Luria, in 1961, and was used to increase an understanding of what is being taught through the combination of mediation, assessment, and instruction (Lantolf, 2009). The DA is a non-linear approach that impacts language development through the relationship between instruction and assessment and provides the validity needed to indicate an ELL's dialectic knowledge (Davin, 2013; Lantolf \& Poehner, 2011; Lauchlan, 2012).

## Summary

Historical use of language tests applied conversational dialogue to identify second language fluency (Cohen, 1988; Hakuta, 2000; Hinkel, 2010; Richards, 2001). Reforms to that way of thinking came about for complex reasons, and innovative research began contribute to an understanding there was a difference between social and academic language skills (Cummins, 1982; Hinkel, 2010; Roessingh, 2006).

The thought process of United States citizens changed when the report, A Nation at Risk, was published and claimed the nation's schools were failing (NCES, 2010; U.S. Department of Education, n.d.a). Education policy makers began demanding everyone be more accountable to the learning of all students (U.S. Department of Education, n.d.a, n.d.b, 2012). This accountability, through the 2001 NCLB Act, led to profound restructuring standards, regardless of a student's language spoken or ethnicity, and the
purpose for academic language learning to decrease the achievement gap (Bailey \& Huang, 2011; Islar, 2010).

Through developments in the understanding of linguistic attainment, accountability pressure from NCLB and political and public expectations, educators also began providing quality instruction through differentiated methods (Brooks \& Thurston, 2010; Cook, 2009; Echevarria \& Vogt, 2010; Short, 2000). Valid and reliable language assessments for ELLs were in demand, so research institutions, such as the WIDA Consortium (2007), developed a "standards and assessment system" (p. 425) that examined the four domains of learning with an emphasis on knowing a student's level of English proficiency (Fox \& Fairbairn, 2011).

The methodologies used to investigate the research questions of this study are described in Chapter Three. Descriptive and inferential statistics are discussed with ethical considerations included. The data are analyzed in Chapter Four, and in Chapter Five, the findings, conclusions, and recommendations for future research are presented.

## Chapter Three: Methodology

As the population of ELLs in America grows, so does the concern for their ability to achieve on high-stakes testing for schools. The purpose of this study was to analyze the relationship between the ACCESS and MAP scores to investigate WIDA's claim that students scoring 5 or greater on the ACCESS assessment are as proficient in language as non-ELL peers. The MAP and ACCESS data for a southwest school district were used to find if an ELL's score on a language test accurately signifies language proficiency in English to do as well as non-ELLs taking the same standardized exam. Relationships between the ELL's own MAP communication arts and math scores and his or her achievement levels on the ACCESS were investigated. This part of the study provided an in-depth examination of the ELLs' proficiency levels and their overall academic performance.

Levels of proficiency in English language of these third- through eighth-grade ELLs were tested and recorded using the WIDA assessment. ELLs also participated in the MAP assessment, and those data were recorded for the district and are available from the Missouri Department of Elementary and Secondary Education (MODESE). Both data were then compared to non-ELL students and their MAP assessment data. Other studies have looked at long-term academic growth and effectiveness of instruction for ELLs. This study did not examine academic growth or the effectiveness of instruction. Effective instructional practices were limitedly discussed in Chapter Two as a way to show how best practices have grown to ensure ELLs are efficiently acquiring the language through quality instruction.

The current research considers the measurement effectiveness of the ACCESS in WIDA's claim. If ELLs are proficient in English, then they are able to be as successful as their native English-speaking peers on a high-stakes assessment taken only in English. Districts need this information for program evaluation for their schools. If students achieve well on mandated tests, the school's ratings increase, showing they deserve accreditation and funding (MODESE, n.d.b, n.d.c).

Research for this project considered if an ELL's proficiency score on a language proficiency exam predicted a proficiency score on a high-stakes content assessment. This study's perspective was also unique since the ELLs' level of language proficiency was explored to see if they can be as academically competent on the same state exam given in English as their non-ELL peers. Notably, no research has been found for this specific type of study. Districts also need language development information to know if they are using the correct test to track student English fluency. Comparing ELLs' level of English proficiency and level of competency on the standardized test to their peers helps establish if ELLs are learning English well enough to achieve as successfully on an exam written for native English speakers.

## Research Questions

The following research questions guided the study:

1. What is the relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages?
2. What is the relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
3. What is the relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
4. What is the difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?
5. What is the difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and nonEnglish Language Learners, as measured by achievement levels, scale scores, and index scores?

Null hypotheses. This is designated by the symbol $H_{0}$.
$H 1_{0}$ : There is no statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.
$H 2_{0}$ : There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 3_{0}$ : There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 4_{0}$ : There is no statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$H 5_{0}$ : There is no statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

Alternative hypotheses. This is represented by the symbol $H_{a}$.
$H 1_{a}$ : There is a statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.
$H 2_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$H 3_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$\mathrm{H}_{4}$ : There is a statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$H 5_{a}$ : There is a statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

## Population

According to the MODESE (2013), the definition for English Language Learner (ELL), when used with respect to an individual, means an individual who is enrolled in school, not native-born in the United States, and has a language other than English. Candidates for this study represented one rural Missouri public school district. The data are based on information gathered from 2010 through 2012 from the MODESE and the WIDA. The MODESE indicated this district consisted of eight elementary schools. Two of those elementary schools, which were selected to participate in this study, contain ELLs for Grades 3 through 8.

Combined enrollment for the two schools in the sample was 562 students. Each school had a predominate population of over $50 \%$ of ELLs. The ELL population accounted for $19.9 \%$ of the students in the district, while an average of $5.1 \%$ of Missouri
students were ELLs (MODESE, n.d.d). The average rate of free and reduced (F/R) price meals for both schools was $84.4 \%$, and the district F/R status was $69 \%$ compared to the state of Missouri at $49 \%$ (MODESE, n.d.d). The dropout rate for the state was at 2.9\% with the district lower at $2.2 \%$ (MODESE, n.d.d). Graduation rates were higher for the district than for Missouri at $84 \%$ and $75 \%$, respectively (MODESE, n.d.d).

MAP data trends from 2010 to 2012 pointed toward the district and state as relatively close in the number of students being proficient on both the reading and math portions of the test. The MAP trends showed $37.7 \%$ of students reading proficiently, and the district at $34.6 \%$ proficient in reading. The MAP math content for Missouri students was at $31.2 \%$ proficient, where the district averaged $40.1 \%$ proficient during the time of this data collection (MODESE, n.d.d).

## Sample

English learning students in the third through eighth grades took the ACCESS test developed by WIDA for the district in 2010-2011 and 2011-2012. Both ELL and nonELL participants took the MAP exam for the same concurrent years. One hundred thirtythree ELL scores were used for the final data analysis for Research Questions 1 through 3.

For Research Questions 4 and 5, of the data eligible to use, only 33 ELLs had taken both exams and scored a 5 or 6 on the ACCESS; therefore, 33 non-ELLs were randomly selected from the two schools. The data set consisted of 66 students: 33 ELLs who scored greater than or equal to 5 on the ACCESS and 33 non-ELLs.

This was a quantitative study using archival data collection in the content areas of reading and math based on reports from state educational agencies and the school district.

Student data for reading and math assessments for both years were collected and compared to find if any relationship existed.

## Instrument

The instruments used to collect data for the study consisted of the MAP exam to record reading and math scores and levels of proficiency for all Grades 3 through 8. The MAP assessment is a required annual exam for all students in Missouri public school districts of Grades 3 through 12 (MODESE, 2013). The ACCESS is an assessment developed by the WIDA Consortium (2007) from a grant received by the government to improve the reliability and validity of language testing. To meet the requirements of NCLB, school districts used the ACCESS to examine, monitor, and facilitate the level of English being achieved by ELLs. The reliability and validity of the ACCESS has been consistently field-tested to ensure its ability to test English proficiency (WIDA Consortium, 2007).

MAP data were collected and stored by the MODESE. The ACCESS data were collected, stored, and distributed by Metritech, Inc. (WIDA Consortium, 2007). Data were accessible to the researcher after being granted IRB approval from the university. The cooperating district then approved use of its data for this research project.

Data were transferred to an Excel file to analyze and disaggregate for students who took ACCESS using the Student Roster Report developed and distributed by Metritech, Inc., to the cooperating school district. A coding system was used to pair the ACCESS and MAP data for each student, to protect individual information. The MAP levels and scale score data were gathered from the MODESE and stored in an Excel file
with a coding system to provide confidentiality for individual information on both the communication arts and math content areas.

Existing relationships were considered between data reflecting each ELL's ACCESS achievement level or scale scores. The MAP communication arts data reflecting each student's achievement in fiction and non-fiction reading were consolidated into an overall reading score frequency. These overall MAP reading scores were used to compare with the ACCESS reading scores.

Scale scores were documented to analyze both the ACCESS and MAP data from Grades 3 through 8. Student assessment scores were used after a random selection of those meeting the requirements for this study. Descriptive statistics were used to analyze and document a comparison of data information. Descriptions of the ACCESS assessment language proficiency Levels 1 through 6, developed by WIDA Consortium (2007), are shown in Table 1.

Table 1
ACCESS Proficiency Level Descriptions

| $6$ <br> Reaching | 5 <br> Bridging | 4 <br> Expanding | $3$ <br> Developing | $2$ <br> Beginning | 1 <br> Entering |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English is comparable to English speaking peers | English closely compares to English peers with errors | English has errors, not compatible to content English of peers | English can impede the understanding of content meanings or communication with English peers | English is just beginning to be used socially, little academic English | English communication starting, lacks understanding of most English |

MAP proficiency levels developed by the MODESE are below basic, basic, proficient, and advanced and were coded for both ELLs and non-ELLs as 1, 2, 3, and 4. Table 2 shows the MAP criteria instituted by the MODESE (2013).

## Table 2

MAP Proficiency Level Descriptions

| 4 | 3 | 2 | 1 |
| :---: | :---: | :---: | :---: |
| Advanced | Proficient | Basic | Below Basic |
| Students make complex inferences about text. | Students interpret and make simple inferences about content. | Students locate, identify, and define information from text. | Students locate information, identify main idea, words, or phrases. |

## Data Collection

A proposal to conduct this study was submitted to Lindenwood's Institutional Review Board, and permission to carry out the research was received on February 19, 2014 (see Appendix A). Included in Appendix A is the Institutional Review Board Disposition Report. Also included is the approval letter of request to perform research on student data from the school district superintendent where the data were collected (see Appendix B). Upon approval, data were gathered based upon the specified date and grade levels, and a numerical coding system was used to protect student identification (see Appendix C) and to input the data into the Excel program. Using the Excel program, a random sample of ELLs' and non-ELLs' scores were recorded for communication arts and math achievement level. Shown in Appendix D is the Certificate of Completion from the National Institutes of Health (NIH).

Analyzing the relationships between the MAP and the ACCESS exams were imperative to know if the tool being used to measure linguistic acquisition was accurate. As the number of ELLs rises (MODESE, 2013; NCES, 2010) and the pressure to meet AYP puts a strain on public schools, it is necessary to use assessments that will be efficient, effective, and financially sound.

## Data Analysis

Scale scores and compiled reading data were inserted into an Excel document from the participating districts' Student Roster Reports and from the MODESE. Designated numerical coding was used to complete data analysis. Pearson ProductMoment Coefficients were calculated to determine what, if any, relationship existed between students' MAP communication arts and math proficiency levels, scale scores, and ACCESS proficiency levels and scale scores. A single factor ANOVA was calculated and used to investigate any existing difference in ELLs achieving greater than or equal to 5 and non-ELLs' communication arts and math proficiencies. Tables, bar graphs, and figures were created to inform and illustrate comparisons.

Descriptive statistics. The descriptive analyses included standard deviations and the means of the research data. Additionally, the Pearson Product-Moment Correlation was used as a descriptive statistic. Denoted as $r$ for samples and introduced by Karl Pearson, who is credited with establishing the discipline of mathematical statistics, Pearson's correlation is widely used as an effect size when paired quantitative data are available. Pearson's $r$ can vary in magnitude from -1 to 1 , with -1 indicating a perfect negative linear relation, 1 indicating a perfect positive linear relation, and 0 indicating no
linear relation between two variables. Cohen $(1988,1992)$ gave the following guidelines for the social sciences: small effect: $r=.10$; medium effect: $r=.30$; large effect: $r=.50$.

Inferential statistics. The Pearson Product-Moment Correlation was also used as an inferential statistic, and a single-factor analysis of variance was performed as well.

Pearson Product-Moment Correlation (PPMC). A PPMC was used on Research Questions 1, 2 and 3 to determine if there was a significant correlation between the proficiency ELLs show on a language exam to the achievement proficiency on the statemandated test. The alpha level for significance was $\alpha=.05$ and the alpha level for highly significant was $\alpha=.01$ (Bluman, 2010). If alpha levels showed high significance the null hypothesis was rejected.

Analysis of Variance: Single factor ANOVA. Research Questions 4 and 5 were statistically examined using the single factor ANOVA. The single factor ANOVA presented differences of the two means using the $F$ test, comparing them simultaneously (Bluman, 2010). The alpha level for significance was $\alpha=.05$ and the alpha level for highly significant was $\alpha=.01$ (Bluman, 2010). If there was no statistically significant difference, then the null hypothesis was not rejected.

## Ethical Considerations

Student data obtained from the cooperating district and from the MODESE were coded numerically to ensure all scores were confidential and anonymous. The district gave permission to use all data gathered for both the MAP and the ACCESS assessments. All MAP and ACCESS data were returned to the district when the research project was completed.

## Summary

Data obtained from the district were collected for the years 2010 to 2012. Reliability and validity of data were acknowledged as such by each testing company's research and analysis. With the use of Excel, program data were documented for analysis to research any correlation of variables for proficiency between the language test and the mandated state exam. Results allowed for comparison of data for student proficiency in English and aptitude on a high-stakes assessment within the participating district.

Analysis of data is contained in Chapter Four for each of the methodological areas. Using the Excel program for Windows, each of the five research questions was evaluated, documented, and analyzed. Contained in Chapter Five are the findings and conclusions of the study. Recommendations for further research are also included in Chapter Five.

## Chapter Four: Analysis of Data

The purpose of this research was to analyze the relationship of proficiency between a linguistic acquisition exam and a high-stakes standardized assessment. Additionally, this study examined the WIDA claim that ELLs who score 5 or 6 on the ACCESS test are able to process and apply academic English as well as non-ELLs on mandated state exams such as the MAP for both reading and math content areas. The WIDA language performance levels were developed to discriminate language proficiency in English and are measured using the ACCESS.

Performance indicators are part of the standards developed to describe expectations of ELLs within each of the four learning domains. Those domains are listening, reading, speaking, and writing. Progression of language development, or performance indicators, for each of the four domains contains Proficiency Levels of 1 through 5. The fifth level in the WIDA framework recognizes an ELL as being as proficient as his or her non-ELL counterpart and to be as skilled in English applications without extra support in the classroom. The final stage is Level 6 and is designated as an exit status for ELLs who are no longer considered an ELL (WIDA Consortium, 2007).

The language proficiency test is standards-referenced, so it is viable to consider the relationship between criteria on both the MAP and the ACCESS (WIDA Consortium, 2007). The current study examined the relationship between an ELL's performance on the MAP communication arts and math assessments and his or her communication arts achievement level on the ACCESS.

Additionally, data were analyzed to determine if those students garnering a 5 or 6 on the WIDA exam performed as well as non-ELL peers in the universal content area of
math and communication arts. This analysis was made to investigate the claim that an ELL who scores Bridging (Level 5) or Reaching (Level 6) has developed specialized or technical language of the content areas on grade level and is as proficient or comparable to his or her native English peers (WIDA Consortium, 2007). Research Questions 4 and 5 examined the difference between MAP communication arts and math scores of these ELL peers. Students in Grades 3 through 8 were intentionally chosen because these grades take both assessments in the participating district.

## Research Questions

The following research questions guided the study:

1. What is the relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages?
2. What is the relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
3. What is the relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
4. What is the difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?
5. What is the difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and nonEnglish Language Learners, as measured by achievement levels, scale scores, and index scores?

## Quantitative Analysis

In this quantitative study, data were collected for 137 ELLs and used to assess Research Questions 1, 2, and 3. Data were assessed for outliers using standardized $z$ scores. Standardized scores greater than 3.29 standard deviations from the mean were considered outliers; four cases were removed (Bluman, 2010; Howell, 2010). One hundred thirty-three participants were used for the final data analysis for Research Questions 1 through 3. Data for 133 students were entered into Excel for Windows. Within each question both descriptive and inferential statistics were reported.

A second set of data was used to assess Research Questions 4 and 5. The data set consisted of 66 students: 33 ELLs who scored greater than or equal to 5 on the ACCESS and 33 non-ELLs. Data for the 66 students were entered into Excel for Windows. Descriptive statistics were used to analyze the sample data. Findings are presented, organized by research question with summaries given for each data set used.

## Research Question 1

RQ1: What is the relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages?
$\boldsymbol{H 1}_{\boldsymbol{0}}$ : There is no statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.
$\boldsymbol{H 1}_{\boldsymbol{a}}$ : There is a statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.

The data set for Research Question 1 consisted of 133 ELLs. Analysis of data included a comparison of reading achievement levels. Of the 133 students, 73 achieved Level 6 on the ACCESS; 20 at Level 5; nine at Level 4; 20 at Level 3; seven at Level 2; and 4 at Level 1. Of the students achieving Level 6 on the ACCESS, 15 scored Advanced on the MAP; 25 scored Proficient; 31 scored Basic; and two scored Below Basic. Of the students achieving Level 5 on the ACCESS, one scored Advanced on the MAP; 6 scored Proficient; 13 scored Basic; and none scored Below Basic.

Of the students achieving Level 4 on the ACCESS, none scored Advanced on the MAP; one scored Proficient; seven scored Basic; and one scored Below Basic. Of the students achieving Level 3 on the ACCESS, none scored Advanced or Proficient on the MAP; 16 scored Basic; and scored Below Basic. Of the students achieving Level 2 on the ACCESS, none scored Advanced or Proficient on the MAP; two scored Basic; and five scored Below Basic. All four of the students achieving Level 1 on the ACCESS, scored Below Basic on the MAP. Table 3 documents the data for proficiency levels of
the ELLs for both the MAP communication arts and the ACCESS levels of achievement for the language exam in reading.

Table 3
MAP by ACCESS Reading Achievement Levels of Participants

|  | MAP Reading Level |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACCESS <br> Reading Level | Advanced | Proficient | Basic | Below <br> Basic | Total |
| Level 6 | 15 | 25 | 31 | 2 | 73 |
| Level 5 | 1 | 6 | 13 | 0 | 20 |
| Level 4 | 0 | 1 | 7 | 1 | 9 |
| Level 3 | 0 | 0 | 16 | 4 | 20 |
| Level 2 | 0 | 0 | 2 | 5 | 7 |
| Level 1 | 0 | 0 | 0 | 4 | 4 |
| Total | 16 | 32 | 69 | 16 | 133 |

Note. ACCESS is the ELL exam. Each level denotes how proficient an ELL student is with English. Level 6 is the highest level obtainable and exits an ELL student from extra English language support. The MAP is taken annually by all students Grades 3-8 in attendance at a Missouri public school. $N=133$.

Question 1 was analyzed using a Pearson Product Moment Correlation (PPMC) to assess the relationship between communication arts ACCESS scores (both achievement levels and scale scores) and MAP composite reading percentages. The assumptions of PPMC are that all variables are continuous, follow a normal distribution, and contain data of equivalent variances. The correlation coefficient for ACCESS levels to MAP composite reading percentage was $r=.65$. The correlation coefficient for ACCESS scale
scores to MAP composite reading percentage was $r=.52$. According to Cohen's (1988, 1992) effect size descriptors, both indicated a strong positive effect size between the two variables.

The critical value of $r$ with degrees of freedom of 100 or greater was .195 (Bluman, 2010). With degrees of freedom equal to 131 , and $r$ greater than .195 , the relationships between both ACCESS achievement levels and scale scores and MAP composite reading scores were statistically significant. Therefore the null hypothesis, there is no statistically significant relationship between an English Language Learner's performance on the reading portion of the MAP communication arts assessment and his or her ACCESS scale score, was rejected, and the alternate hypothesis was considered. Results of the PPMC are presented in Table 4, with visual representations in Figures 1 and 2.

Table 4
Pearson Product Moment Correlation (PPMC) between MAP Composite Reading
Percentage and ACCESS Reading Achievement Levels and Scale Scores

|  | MAP Composite Reading Percentage |
| :--- | :--- |
| ACCESS Reading Level | $.65^{*}$ |
| ACCESS Reading Scale Score | $.52^{*}$ |

[^0]

Figure 1. Scatter plot of correlation between MAP composite reading percentage and ACCESS reading achievement level.


Figure 2. Scatter plot of correlation between MAP composite reading percentages and ACCESS reading scale score.

## Research Question 2

RQ2: What is the relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?

H20: There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$\boldsymbol{H} \mathbf{2}_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.

The data set for Research Question 2 consisted of 133 ELLs. Analysis of data included a comparison for both overall achievement level and scale scores on the overall MAP communication arts and the student's overall achievement level and scale scores on the ACCESS. Of the 133 ELL students, 72 achieved Level 6 on the ACCESS; six at Level 5; 28 at Level 4; 22 at Level 3; four at Level 2; and one on Level 1. Of the students achieving Level 6 on the ACCESS, 14 scored Advanced on the MAP; 26 scored Proficient; 30 scored Basic; and two scored Below Basic.

Of the students achieving Level 5 on the ACCESS, one scored Advanced on the MAP; two scored Proficient; three scored Basic; and none scored Below Basic. Of the students achieving Level 4 on the ACCESS, none scored Advanced on the MAP; two scored Proficient; 24 scored Basic; and two scored Below Basic. Of the students
achieving Level 3 on the ACCESS, none scored Advanced on the MAP; two scored Proficient; 13 scored Basic; and seven scored Below Basic. All four of the students achieving Level 2 on the ACCESS scored Below Basic on the MAP. The student who achieved Level 1 on the ACCESS also scored Below Basic on the MAP. Table 5 presents achievement level on the overall MAP communication arts assessment and overall achievement level on the ACCESS.

Table 5
MAP by ACCESS Overall Achievement Levels of Participants

|  | MAP Communication Arts Level |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACCESS <br> Overall Level | Advanced | Proficient | Basic | Below <br> Basic | Total |
| Level 6 | 14 | 26 | 30 | 2 | 72 |
| Level 5 | 1 | 2 | 3 | 0 | 6 |
| Level 4 | 0 | 2 | 24 | 2 | 28 |
| Level 3 | 0 | 2 | 13 | 7 | 22 |
| Level 2 | 0 | 0 | 0 | 4 | 4 |
| Level 1 | 0 | 0 | 0 | 1 | 1 |
| Total | 15 | 32 | 70 | 16 | 133 |

Note. ACCESS is the ELL exam. Each level denotes how proficient ELLs are with English. Level 6 is the highest level obtainable and exits ELLs from extra English language support. The MAP is taken annually by all students Grades 3-8 in attendance at a Missouri public school. $N=133$.

The data for Question 2 were analyzed using a PPMC to assess the relationship between overall ACCESS scores (both achievement levels and scale scores) and MAP
communication arts scores (both achievement levels and scale scores). The assumptions of the PPMC are that all variables are continuous, follow a normal distribution, and contain data of equivalent variances. The correlation coefficient between overall ACCESS achievement levels and MAP communication arts levels was $r=.58$. The correlation coefficient between overall ACCESS achievement levels and MAP communication arts scale score was $r=.68$. The correlation coefficient between the overall ACCESS scale score and MAP communication arts scale score was $r=.63$. The correlation coefficient between the overall ACCESS scale score and MAP communication arts achievement levels was $r=.56$.

According to Cohen's $(1988,1992)$ effect size descriptors, each relationship indicated a strong positive effect size between the variables. With degrees of freedom equal to 131 , and $r$ greater than the critical value of .195 (Bluman, 2010), the relationship in all four cases was statistically significant. Therefore, the null hypothesis, there is no statistically significant relationship between an English Language Learner's overall ACCESS achievement and his or her MAP communication arts for both achievement levels and scale scores, was rejected, and the alternate hypothesis was considered. The Pearson product moment correlation is presented in Table 6 with visual representations in Figures 3 through 6.

Table 6
Pearson Product Moment Correlations (PPMC) Among Overall ACCESS and MAP
Communication Arts Achievement Levels and Scale Scores

|  | MAP Communication Arts <br> Achievement Level | MAP Communication Arts <br> Scale Score |
| :--- | :---: | :---: |
| Overall ACCESS | $.58^{*}$ | $.68^{*}$ |
| Achievement Level | $.56^{*}$ |  |
| Overall ACCESS | $.63^{*}$ |  |
| Scale Score |  |  |

*p < . 05 .


Figure 3. Scatter plot of correlation between MAP communication arts levels and overall
ACCESS achievement levels.


Figure 4. Scatter plot of correlation between MAP communication arts scale scores and overall ACCESS achievement levels.


Figure 5. Scatter plot of correlation between MAP communication arts scale scores and overall ACCESS scale scores.


Figure 6. Scatter plot of correlation between MAP communication arts achievement level and ACCESS scale scores.

## Research Question 3

RQ3: What is the relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?
$\boldsymbol{H 3}_{\boldsymbol{0}}$ : There is no statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.
$\boldsymbol{H 3}_{a}$ : There is a statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.

The data set for Research Question 3 consisted of 133 ELLs. Analysis of data included a comparison for both overall achievement and scale scores on the MAP math
assessment and overall achievement and scale scores on the ACCESS. Of the 133 students, 72 achieved Level 6 on the ACCESS; six at Level 5; 29 at Level 4; 21 at Level 3; four at Level 2; and one on Level 1. Of the students achieving Level 6 on the ACCESS, 16 scored Advanced on the MAP; 28 scored Proficient; 28 scored Basic; and none scored Below Basic. Of the students achieving Level 5 on the ACCESS, none scored Advanced on the MAP; four scored Proficient; 11 scored Basic; and none scored Below Basic. Of the students achieving Level 4 on the ACCESS, 11 scored Advanced on the MAP; 17 scored Proficient; one scored Basic; and one scored Below Basic.

Of the students achieving Level 3 on the ACCESS, one scored Advanced on the MAP; two scored Proficient; 14 scored Basic; and four scored Below Basic. Of the students achieving Level 2 on the ACCESS, none scored Advanced or Proficient on the MAP; one scored Basic; and three scored Below Basic. The student who achieved Level 1 on the ACCESS scored Basic on the MAP. Table 7 presents the correspondence of overall achievement level on the MAP math assessment with overall achievement level on the ACCESS.

Table 7
MAP Math by ACCESS Overall Achievement Levels of Participants

|  | MAP Math Level |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| ACCESS <br> Overall Level | Advanced | Proficient | Basic | Below <br> Basic | Total |
| Level 6 | 16 | 28 | 28 | 0 | 72 |
| Level 5 | 0 | 4 | 2 | 0 | 6 |
| Level 4 | 0 | 11 | 17 | 1 | 29 |
| Level 3 | 1 | 2 | 14 | 4 | 21 |
| Level 2 | 0 | 0 | 1 | 3 | 4 |
| Level 1 | 0 | 0 | 1 | 0 | 1 |
| Total | 17 | 45 | 63 | 8 | 133 |

Note. ACCESS is the ELL exam. Each level denotes how proficient ELLs are with English. Level 6 is the highest level obtainable and exits ELLs from extra English language support. The MAP is taken annually by all students Grades 3-8 in attendance at a Missouri public school. $N=133$.

Question 3 was analyzed using a PPMC to assess the relationship between overall ACCESS scores (both achievement levels and scale scores) and MAP math scores (both achievement levels and scale scores). The assumptions of the PPMC are that all variables are continuous, follow a normal distribution, and contain data of equivalent variances. The correlation coefficient between MAP math levels and overall ACCESS achievement levels was $r=.48$. The correlation coefficient between MAP math scale scores and overall ACCESS scale scores was $r=.48$. These values indicated a high moderate positive relationship between the two variables. The correlation coefficient between MAP math scale scores and overall ACCESS achievement levels was $r=.54$. The
correlation coefficient between MAP math scale scores and overall ACCESS scales was $r$ $=.71$. These scores indicated a strong positive relationship between the two variables. With degrees of freedom equal to 131 , and $r$ greater than the critical value of .195 , the relationship in all four cases was statistically significant. Therefore, the null hypothesis, there is no statistically significant relationship between an English Language Learner's scale scores on the MAP math assessment and his or her scale scores on the ACCESS, was rejected, and the alternate hypothesis was considered. The results of the PPMC are presented in Table 8, with visual representations in Figures 7 through 10.

Table 8
Pearson Product Moment Correlations (PPMC) among Overall ACCESS and MAP Math
Achievement Levels and Scale Scores

|  | MAP Math <br> Achievement Level | MAP Math <br> Scale Score |
| :--- | :---: | :---: |
| Overall ACCESS <br> Achievement Level | $.48^{*}$ | $.48^{*}$ |
| Overall ACCESS <br> Scale Score | $.54^{*}$ | $.71^{*}$ |
| ${ }^{*} p<.05$. |  |  |



Figure 7. Scatter plot of correlation between MAP math achievement levels and overall ACCESS achievement levels.


Figure 8. Scatter plot of correlation between MAP math scale scores and overall ACCESS achievement levels.


Figure 9. Scatter plot of correlation between MAP math achievement levels and overall ACCESS scale scores.


Figure 10. Scatter plot of correlation between MAP math scale scores and overall ACCESS scale scores.

## Summary of Research Questions 1, 2, and 3

Research Questions 1 and 2 reported statistically significant, strong, positive relationships for their correlation coefficients. Research Question 3, comparing level-tolevel and level-to-scale scores, reported statistically significant, high-moderate, positive relationships for their correlation coefficients. These three questions were researched to determine the relationships and patterns within the 133 ELLs' achievements for both the ACCESS and the MAP.

## Research Question 4

RQ4: What is the difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?
$H_{4}$ : There is no statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$\boldsymbol{H 4}_{a}$ : There is a statistically significant difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

The data set for Question 4 consisted of 66 students: 33 ELLs who scored greater than or equal to 5 on the ACCESS and 33 non-ELLs. Of the 33 ELLs, seven scored Advanced on the MAP communication arts assessment; 13 scored Proficient; 12 scored

Basic; and one scored Below Basic. The ELLs' MAP achievement level percentages are shown in Figure 11.


```
@ Advanced
\squareProficient
\squareBasic
\squareBelow Basic
```

Figure 11. Percentage of ELL students per MAP communication arts achievement levels.
Of the non-ELLs, 10 scored Advanced on the MAP; nine scored Proficient; 12 scored Basic; and two scored Below Basic. MAP assessment levels for non-ELLs are presented in Figure 12.


Figure 12. Percentage of non-ELL students per MAP communication arts achievement levels.

Figure 13 displays the frequency of ELLs' and non-ELLs' MAP communication arts achievement levels.


Figure 13. Bar graph displaying MAP communication arts achievement levels for both ELLs and non-ELLs.

To measure progress and to distinguish among school and district performance, the MODESE computed an Annual Performance Report (APR) score for each school and Local Education Agency (LEA) based from the results of the MAP. The MAP communication arts levels for both ELLs and non-ELLs are categorized by four levels to signify what academic level was reached by the students. Frequencies between the two groups achievement levels is one method NCLB uses to measure student achievement capabilities in communication arts.

ELLs obtained a higher degree of proficiency on the state assessment written in English than the non-ELLs. Almost 64\% (63.6\%) of the ELLs attained either advanced or proficient on their MAP communication arts assessment while $57.6 \%$ of non-ELLs attained advanced or proficient on the same exam.

An index score is part of the computation to obtain the APR score and indicates achievement (MODESE, 2014). The index score was calculated for ELLs who scored greater than or equal to 5 on the ACCESS and non-ELLs' levels for MAP communication arts. The index score for ELLs was 378.78 and the index score for non-ELLs was 375.75. ELLs out-performed the non-ELLs on the MAP communication arts assessment by 3.03 points. This indicated that with an ACCESS score of greater than or equal to 5 , an ELL can apply academic language on a high-stakes assessment as well as or better than native English speakers. The MAP communication arts achievement levels for both ELLs and non-ELLs are designated in Table 9.

Table 9
Frequencies and Percentages of MAP Communication Arts Achievement Levels for ELLs and Non-ELLs

|  | ELLs $(n=33)$ |  | Non-ELLs $(n=33)$ |  |
| :---: | ---: | ---: | ---: | ---: |
| MAP Communication Arts <br> Achievement Levels | Index Score $=378.79$ | Index Score $=375.76$ |  |  |
| Advanced | $14 \quad(21.2 \%)$ | $10 \quad(32.3 \%)$ |  |  |
| Proficient | 21 | $(63.6 \%)$ | 19 | $(57.6 \%)$ |
| TOTAL Advanced \& Proficient | 11 | $(33.3 \%)$ | $12 \quad(36.4 \%)$ |  |
| Basic | 1 | $(3.0 \%)$ | $2 \quad(6.0 \%)$ |  |
| Below Basic |  |  |  |  |

Note. Percentages do not total 100 due to rounding error.

Means and standard deviations were calculated to describe the students' scale scores. For the ELLs, scores on the overall MAP communication arts assessment ranged from 584-820, with a mean of 678.15 . For the non-ELLs, overall MAP reading scale scores ranged from 566-745, with a mean of 677.03. Means and standard deviations for test scores are presented in Table 10.

Table 10
Means and Standard Deviations for MAP Communication Arts Scale Scores for ELLs and Non-ELLs

|  | ELLs $(n=33)$ |  | Non-ELLs $(n=33)$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $M$ | $S D$ | $M$ | $S D$ |
| MAP Communication Arts <br> Scale Scores | 678.15 | 42.35 | 677.03 | 36.67 |

A single factor ANOVA was used to assess the difference in overall MAP communication arts scale scores by group (ELLs vs. non-ELLs). An alpha (significance level) of .05 was used for analysis. The ANOVA findings were $F(1,64)=0.00$, and $p=$ .990, which indicated the mean difference of 1.12 was not statistically significant.

Therefore, there is no significant difference in overall MAP communication arts scale scores by group (ELLs vs. non-ELLs). The null hypothesis, there is no statistically significant difference in MAP communication arts achievement levels between ELLs scoring greater than or equal to 5 on the ACCESS test and non-ELLs, was not rejected. Results of the ANOVA are presented in Table 11, and mean differences are visually represented in Figure 14.

Table 11
ANOVA of Overall MAP Communication Arts Scale Scores by Group (ELLs vs. nonELLs)

| Source | $d f$ | $F$ | $p$ | Partial $\eta^{2}$ |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Group | 1 | 0.00 | .990 | .00 |
| Error | 64 |  |  |  |



Figure 14. Bar graph displaying means of ELLs' and non-ELLs' MAP communication arts scale scores.

## Research Question 5

RQ5: What is the difference in MAP math achievement between English
Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?
$\boldsymbol{H 5}_{\boldsymbol{0}}$ : There is no statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.
$\boldsymbol{H} \boldsymbol{5}_{\boldsymbol{a}}$ : There is a statistically significant difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

The data set for Question 5 consisted of 66 students: 33 ELLs who scored greater than or equal to 5 on the ACCESS and 33 non-ELLs. Of the 33 ELLs, five scored Advanced on the MAP math assessment; 16 scored Proficient; 11 scored Basic; and one scored Below Basic. The ELLs' MAP math percentages are shown in Figure 15.


Figure 15. Percentage of ELL students per MAP math achievement levels.

Of the 33 non-ELLs, seven scored Advanced on the MAP; 14 scored Proficient; 11 scored Basic; and one scored Below Basic. Non-ELLs' MAP math percentages are shown in Figure 16.


Figure 16. Percentage of non-ELL students per MAP math achievement levels.

Annual Performance Report (APR) scores for each school and Local Education Agency (LEA) based off the results of the MAP are computed by the MODESE. The MAP math achievement levels for both ELLs and non-ELLs are categorized with four levels to signify what academic level was reached by the students. Looking at the percentage of students meeting academic requirements to achieve Proficiency or Advanced indicates that ELLs who reach greater than or equal to 5 on the ACCESS apply English language as successfully as non-ELLs on a high-stakes assessment. Almost 64\% (63.6\%) of the ELL students achieved a level of Proficiency or Advanced on their MAP math assessment, while $63.6 \%$ of non-ELLs also achieved Proficiency or Advanced on their MAP math assessment, indicating that ELLs did as well as traditional English
speakers on the MAP. The MAP math achievement levels for both ELLs and non-ELLs are shown in Figure 17.


Figure 17. Bar graph displaying MAP math achievement levels for both ELLs and nonELLs.

An index score is part of the computation to obtain the APR score and indicates achievement for the district (MODESE, 2014). An index score was calculated for ELLs who scored greater than or equal to 5 on the ACCESS and non-ELLs' levels for the MAP math assessment. The index score for the ELL group was 372.72 , and the index score for the non-ELLs was 378.78 (see Table 12). This indicated with a score greater than or equal to 5 on the ACCESS, an ELL student can apply academic language on the math portion of a high-stakes assessment better than native English speakers.

Table 12
Frequencies and Percentages of MAP Math Achievement Levels for ELLs and Non-ELLs

|  | ELLs $(n=33)$ |  | Non-ELLs $(n=33)$ |
| :--- | ---: | ---: | ---: |
| MAP Math <br> Achievement Levels | Index Score $=372.73$ | Index Score $=378.79$ |  |
| Advanced | $5(15.2 \%)$ | 7 | $(21.2 \%)$ |
| Proficient | 16 | $(48.4 \%)$ | 14 |
| (42.4\%) |  |  |  |
| TOTAL Advanced \& Proficient | 21 | $(63.6 \%)$ | 21 |
| Basic | 11 | $(33.3 \%)$ | 11 |
| Below Basic | 1 | $(3.0 \%)$ | 1 |

Note. Percentages do not total 100 due to rounding error.

Means and standard deviations were calculated to describe the students' scores. ELLs' scale scores on overall MAP math ranged from 595-758, with a mean of 675.21. Non-ELLs scale score on overall MAP math ranged from 580-751, with a mean of 679.82. This difference signified that ELLs are almost as proficient (within 4.61 scale score points) as the non-ELLs on the MAP math assessment. Means and standard deviations for test scores are presented in Table 13.

Table 13
Means and Standard Deviations for MAP Math Scale Scores for ELL and Non-ELL
Students

|  | ELLs $(n=33)$ |  | Non-ELLs $(n=33)$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $M$ | $S D$ | $M$ | $S D$ |
| MAP Math <br> Scale Scores | 675.21 | 37.85 | 679.82 | 42.59 |

A single factor ANOVA was used to assess the differences in overall MAP math scale scores by group (ELLs vs. non-ELLs). An alpha of . 05 was used for analysis. The ANOVA findings were $F(1,64)=0.22$, and $p=.644$, which indicated an absence of a significant difference in overall MAP math scores by group (ELLs vs. non-ELLs). The null hypothesis, there is no statistically significant difference in MAP math achievement levels between ELLs and non-ELLs, could not be rejected. Results of the ANOVA are presented in Table 14, and mean differences are visually represented in Figure 18.

Table 14
ANOVA of Overall MAP Math Scale Scores by Group (ELLs vs. non-ELLs)

| Source | $d f$ | $F$ | $p$ | Partial $\eta^{2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Group | 1 | 0.22 |  |  |
| Error | 64 |  | .644 | .00 |



Figure 18. Bar graph displaying means of ELLs' and non-ELLs' MAP math scale scores.

## Summary

Research was conducted to examine relationships between the ACCESS, a language assessment, and the MAP, a high-stakes exam. The assessment results assist districts in reviewing the status of their students' achievement and provides reports at the state and federal levels for accountability purposes. Contained in Chapter Five are the findings of this study and recommendations for future research.

## Chapter Five: Findings and Recommendations

ELLs are no longer new to the American educational system. They are, in fact, becoming part of the nation's demographics (Bunch, 2011; Samson \& Collins, 2012). As school systems welcome ELLs into their institution, complications have risen as to how to meet their language learning needs, while still meeting the requirements set out by NCLB (Bunch, 2011; U.S. Department of Education,n.d.b, 2012, 2014). Historically, linguistic tests were influenced by the need to learn the language quickly so ELLs could become a part of society and work (Bunch, 2011; Hakuta, 2011). Many behaviorists developed tests that determined how well ELLs spoke English and their fluency of grammar (Cohen, 1992; McGarrell, 1981; Richards, 2001). Current linguistic exams, such as the ACCESS, have been developed to evaluate an ELL's proficiency in both social and academic language (Cummins, 1982; Hinkel, 2010; Roessingh, 2006; WIDA Consortium, 2007).

As new education policies mandated that ELLs should meet the rigors and standards of their counterparts, demands for ELLs to learn the language were expected without much support (Bunch, 2011). The ELLs were to take the same exams as nonELLs in their second language and be able to make the same progress (U.S. Department of Education, 2012). American schools began to experience gaps between the academic abilities of ELLs and their peers, and debates on how ELLs were to be taught began concerning many throughout the country (NCES, 2010; U.S. Department of Education, 2014).

Debates continue on whether ELLs should be taught English using bilingual or immersion methods (Jost, 2009). Supporters of bilingual education adamantly believe it
is the only way students can become life-long learners in both their native and second languages (Lugo-Neris et al., 2010). Advocates of immersion learning argue it is the only way to close the learning gap and become fluent in English (Jost, 2009). Chaung and Slavin (2011) found the "quality of instruction" was more essential than how the language was learned (p. 4).

Conversations about teacher effectiveness and implications of the influx that ELLs have on schools are significant (Samson \& Collins, 2012). As standards and policies require more accountability of teachers, not all are well prepared to assist ELLs with their learning (Samson \& Collins, 2012). Past teaching methods are being replaced with strategies to help ELLs acquire the content language needed to be successful in school and on state assessments (Lombardi, 2008). As research developed new ideas and thinking about how language was acquired, new methods for testing emerged to support differentiation of learning (Echevarria \& Vogt, 2010). Professional development for teachers in these new language methods is a key factor in developing quality lesson plans for instruction and assessment to meet the linguistic needs of ELLs (Echevarria \& Vogt, 2010; Haystead \& Marzano, 2009; Helfrich \& Bosh, 2011).

Not until 2004, when the WIDA (2007) developed standards with language goals immersed with academic goals, did the crucial understanding for the role of assessment and language proficiency become apparent (Bailey \& Huang, 2011; Hinkel, 2010; Lavadenz, 2010). In order for ELLs to be assessed with validity, the test must measure the skill, not the language (Pitoniak et al, 2009). This is a difficult task, as there are many factors to consider when developing an assessment for ELLs (Pitoniak et al., 2009).

Accommodations for cultural disparities, background knowledge, and personal and formal experiences in and out of school, are a few of the considerations when assessing academic skills of ELLs (Pappamihiel \& Walser, 2009; Pitoniak et al., 2009). Learning another language and applying it to content can only be achieved over a long period of time (Cook et al., 2011). Research concludes that several years are needed to become proficient in a second language (Hakuta, 2010). With the understanding that language proficiency takes time, ELLs require extra support and fair assessments to examine psychometric skills, not language fluency, to show what they really know (Poehner \& Lantolf, 2010).

The present study was conducted to see if there were relationships between ELLs' assessment in language proficiency and their state-mandated exam (the MAP assessment). Also studied were the differences in the proficiency levels on the MAP assessment between ELLs who scored at least 5 on the ACCESS test and their non-ELL peers. Findings, in regards to the research questions examined, conclusions and implications for practice, and recommendations for future research are presented in this chapter.

## Findings

One hundred sixty-six students in Grades 3 through 8 were the participants for this study. One hundred thirty-three students were ELLs as designated by the MODESE standards and took both the ACCESS and MAP exams (MODESE, n.d.a, n.d.b). Thirtythree students were non-ELLs and took only the MAP assessment. Data were obtained from two schools within one district having more than $50 \%$ ELLs enrolled in each school (MODESE, n.d.c).

The data collection instruments for this research were the ACCESS and MAP assessments. Data on ELLs who reached a proficient level of 5 or greater on the ACCESS were collected and analyzed. Also collected were data for ELLs in Grades 3 through 8 not obtaining a 5 or 6 on the ACCESS. Data for the ACCESS were provided by the WIDA to the participating district and was collected for years 2010-2011 and 2011-2012 for the study (WIDA Consortium, 2007).

Data for 33 non-ELL participants were also gathered for Grade 3 through 8 nonELLs who took both the MAP communication arts and math assessments. The MAP data for the district were obtained from the MODESE (n.d.c). Data were sorted by groups, ELLs and non-ELLs, as well as by the level of proficiency met by ELLs on the ACCESS (cut score of 5).

The Pearson Product Moment Correlation was applied to determine any relationships between ELLs' scores in reading on the ACCESS and MAP.

- First tested were ELLs' reading achievement scores on the ACCESS language assessment and achievement scores on the reading portion of the MAP.
- Second, overall achievement scores on the ACCESS were compared to overall MAP communication arts scores for ELLs.
- Finally, relationships between ELLs' overall ACCESS scores and the MAP math assessment were investigated to determine how well they achieved on content intended to evaluate math skills yet guided with directions in English. This portion of the study was guided by Research Questions 1 through 3.

Research Question 1. What is the relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts
assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages?

One hundred and thirty-three English Language Learners' (ELLs) data were used to consider if a relationship existed between an ELL's achievement on the reading portion of the MAP and his or her reading achievement level on the ACCESS. For the reading portions of the ACCESS and the MAP, a correlation coefficient of $r=.65$ was found for the ELL group. For ACCESS scale scores and MAP composite reading scores, the ELL group yielded a correlation coefficient of $r=.52$. This indicated a statistically significant, strong effect size for both tests (Cohen, 1988, 1992). The null hypothesis was rejected in favor of the alternative hypothesis; results of this study indicated a statistically significant relationship between an English Language Learner's composite reading and overall achievement on the MAP communication arts assessment and his or her reading and overall achievement on the ACCESS, as measured by achievement levels, scale scores, and percentages.

Research Question 2. What is the relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?

Four correlation tests were conducted for Research Question 2 for all ELLs: MAP communication arts achievement levels were compared to overall ACCESS achievement levels; MAP communication arts scale scores were compared to overall ACCESS achievement levels; MAP communication arts scale scores were compared to
overall ACCESS scale scores; and MAP communication arts achievement levels were compared to overall ACCESS scale scores.

For the reading portions of ACCESS and MAP, the ELL group yielded a correlation coefficient of $r=.63$, which indicated a strong effect (Cohen, 1988, 1992). The overall ACCESS achievement level compared to MAP communication arts scale score produced an $r=.68$ correlation. The overall ACCESS scale score compared to MAP communication arts achievement level yielded an $r=.56$ correlation. The overall ACCESS scale score compared to MAP communication arts scale score also produced an $r=.63$ correlation. Each of these results indicated the presence of a statistically significant, strong (Cohen, 1988, 1992), positive relationship between overall achievement levels and scale scores on the MAP and ACCESS communication arts assessments. Results of this study indicated that the null hypothesis should be rejected in favor of the alternative hypothesis: there is a statistically significant relationship between an English Language Learner's overall achievement on the MAP communication arts assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores.

Research Question 3. What is the relationship between an English Language
Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores?

Data for Research Question 3 were applied to four different correlations. First, MAP math achievement levels were compared to overall ACCESS achievement levels. A positive relationship was found, $r=.48$. Second, MAP math scale scores were compared to overall ACCESS achievement levels and indicated a positive correlation of $r$
$=.48$. Third, MAP math achievement levels and overall ACCESS scale scores were compared, which also yielded a positive relationship, $r=.54$. Lastly, MAP math scale scores and overall ACCESS scale scores were compared, and a statistically significant, strong (Cohen, 1998, 1992), positive relationship between scale scores was discovered, $r$ $=.71$. The alternative hypothesis, there is a statistically significant relationship between an English Language Learner's overall achievement on the MAP math assessment and his or her overall achievement on the ACCESS, as measured by achievement levels and scale scores was considered.

Research Question 4. The study examined differences between ELLs and nonELLs with a quantitative method through the use of archived data for Research Question 4. The criterion to research the difference in MAP communication arts performance of ELLs to non-ELLs included only those ELLs who scored 5 or greater on the ACCESS to determine if they had acquired enough English language to be as proficient as their peers. This criterion was chosen based on the WIDA's claims that ELLs who achieve a 5 or greater on the ACCESS have the ability to apply English as well as non-ELLs (WIDA, 2007). This portion of the study was guided by the following research question:

What is the difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores?

Data sets for 66 individuals were used to research Question 4. Thirty-three students were ELLs who scored greater than or equal to 5 on the ACCESS and also took the MAP assessment, and the other 33 were randomly chosen non-ELLs who took the

MAP. Forty-two percent (42.4\%) of ELLs achieved proficient and $21.2 \%$ achieved advanced on the MAP communication arts portion. Of the 33 non-ELL participants, 27.3\% were proficient while $30.3 \%$ scored advanced on the MAP communication arts portion. Stated another way, $63.6 \%$ of ELLs with English proficiency (ACCESS score of 5 or above) attained either advanced or proficient on their MAP communication arts exam, while only $57.6 \%$ of non-ELLs attained advanced or proficient on the same assessment.

Index scores were calculated for both groups. Index scores were used for this test to provide a statistical representation of the value of the achievement levels of MAP communication arts levels attained by both ELLs and non-ELLs. The ELLs' MAP communication arts index score was 378.79 . Non-ELLs attained a 375.76 index score for the same assessment. This indicated that ELLs who scored a 5 or greater on the linguistic proficiency exam out-performed their non-ELL peers on the MAP communication arts assessment. The difference of index scores was 3.03 points higher for ELLs when scale scores were used to create index scores on both assessments.

Scale scores were used to calculate means and standard deviations for both groups. When looking at the overall MAP communication arts scores, the ELLs' mean was 678.15 , with a standard deviation of 43.35 . The non-ELLs' overall MAP communication arts scores mean was 677.03 , with a standard deviation of 36.67 . These mean and standard deviation scores were used to determine if a statistical difference existed between ELLs and non-ELLs.

ANOVA tests were conducted to compare the differences between group means (Bluman, 2010). For Question 4 of this portion of the study, a single factor ANOVA was
used to calculate differences in scale scores in overall MAP communication arts between ELLs and non-ELLs. The analysis exhibited little discrepancy in scores once ELLs are proficient in English. The difference in MAP communication arts scores between ELLs who are deemed English-proficient, based on the ACCESS, and their non-ELLs peers was not statistically significant.

The data for Research Question 4 found that ELLs showed their ability to apply and comprehend content English once they reach a Level 5 or higher on the ACCESS. More ELLs were able to attain proficient or advanced on the MAP communication arts portion, meeting the designated requirement of NCLB on a high-stakes assessment (MODESE, 2013), than non-ELLs, by 6\%. There was not enough evidence to reject the null hypothesis; therefore, it is plausible there is no difference in MAP communication arts achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and non-English Language Learners, as measured by achievement levels, scale scores, and index scores.

Research Question 5. To respond to Question 5, archival data were gather to distinguish a difference in MAP math and ACCESS performance between ELLs and nonELLs. Included were 66 participants in Grades 3 through 8. The criterion to find the difference in MAP communication arts and math performance of ELLs to non-ELLs included only those ELLs who scored 5 or greater on the ACCESS to determine if they had acquired enough English language to be as proficient as their peers. This criterion was chosen based on the WIDA's claim that ELLs who achieve a 5 or greater on the ACCESS have the ability to apply English as well as non-ELLs (WIDA Consortium, 2007). This portion of the study was guided by the following research question:

What is the difference in MAP math achievement between English Language Learners scoring greater than or equal to achievement Level 5 on the ACCESS and nonEnglish Language Learners, as measured by achievement levels, scale scores, and index scores?

Data sets for 66 individuals were also used to research Question 5. The sample consisted of 33 ELLs who scored greater than or equal to 5 on the ACCESS and also took the MAP exam, and 33 randomly chosen non-ELLs who took the MAP. The MAP frequencies were compared between ELLs and non-ELLs to indicate achievement for each group. Of the ELLs, $48.5 \%$ scored proficient, and $15.1 \%$ achieved advanced on the MAP math portion. Of the 33 non-ELL participants, $42.4 \%$ were proficient , while $21.2 \%$ scored advanced on the MAP math portion. ELLs who scored a 5 or greater on the ACCESS reported $63.6 \%$ ( 21 of 33 students) who achieved proficient or advanced on MAP math, and the same percentage (63.6\%) of non-ELLs also attained advanced or proficient on the MAP math assessment.

Index scores were calculated for both groups. The ELLs' average MAP math index scores were 372.72. Index scores were used for this test to provide a statistical representation of the value of the achievement levels of MAP math levels attained by both ELLs and non-ELLS. Non-ELLs attained a 378.79 index score for the same assessment. The difference of index scores was 6.06 points higher for non-ELLs when comparing scale scores between both groups.

Scale scores were used to calculate means and standard deviations for both groups. The ELLs' overall MAP math scores yielded a mean of 675.21 and a standard deviation of 37.85. The non-ELLs' overall MAP math scores mean was 679.82 with a
standard deviation of 42.59. These mean and standard deviation scores were used to determine if a statistical difference existed between ELLs and non-ELLs.

A single factor ANOVA was used to calculate the difference between MAP math scale scores for both groups, English-proficient ELLs and non-ELLs. The analysis exhibited little discrepancy in scores once ELLs are proficient in English. The modest difference in how English-proficient ELLs score on the MAP math assessment compared to their non-ELLs peers was not statistically significant.

In response to Question 5, fewer English-proficient ELLs reached advanced on the MAP math section of the assessment than did non-ELLs. Conversely, both groups had the same percentage of students meeting the standards of NCLB to reach proficient or advanced on the mandated state assessment (MODESE, n.d.b). This lends support to the claim that if ELLs are proficient in English, then they do as well as non-ELLs on content assessments (WIDA Consortium, 2007). However, there was not enough evidence, based on the ANOVA, to reject the null hypothesis: there is no statistically significant difference in MAP math achievement levels between ELLs and non-ELLs.

## Conclusions

In conclusion, results of the current study indicated that the ACCESS language assessment is a good indicator of language proficiency and can be used as a tool for districts to measure the progress of ELLs, thereby helping to determine if quality instruction is being provided for ELLs. The information from this research also signifies the importance of teachers using the data from the language assessment to help them improve instruction. Language assessing is a tool that provides the data from a research-
based language assessment that informs the educator of a student's language acquisition level.

Standardized tests are used by schools for accountability purposes, but at the same time, limit opportunities in learning for ELLs by using a one-time exam to measure achievement for a complex situation (Pappamihiel \& Walser, 2009). Using a linguistic assessment to discover a student's level of proficiency in English can serve to help the educator provide quality instruction as required by NCLB (Cook, 2009; U.S. Department of Education, 2012). Results from the current study suggested that language assessments can indicate the level of achievement for ELLs on a state-mandated test. The findings of the present research are consistent with and support the following quote, "An EL's level of English language proficiency fundamentally affects their academic performance on assessments conducted in English" (U.S. Department of Education, 2012, p. 68).

## Implications for Practice

Considering the question, which drove this research (Is WIDA's (2007) claim that if ELLs are proficient in English then they do as well as non-ELLs on content assessments?), educators must still be aware that all students have variables that cause learning to be an individual experience. The future of the country lies in the hands of the nation's students. To ensure they are successful, educators must provide quality differentiated instruction for the optimal growth in academic language acquisition. School administrators must provide continual professional development to equip teachers with the knowledge to maintain quality instruction using current research. Political entities must provide funding and continue to support professional development for quality language instruction to close the learning gap between ELLs and non-ELLs.

The results of this study support the validity and use of the ACCESS language test. Reliability and validity of testing are a concern because of the complexities presented by ELLs and their academic learning (Tremblay, 2011). All ELLs have extraneous factors that contribute to their language development and experiences that cannot be controlled (Tremblay, 2011). Measuring academic growth with only a highstakes test is a disadvantage to ELLs as its validity is compromised - in addition to content; large-scale assessments also test for language proficiency (Hinkel, 2010).

Use of a linguistic proficiency exam is a starting point to support instruction of ELLs for cognitive development of language (Cook, 2009). Language issues are a vital concern in evaluating academic progress, because ELLs not only need to know the content but must also demonstrate the understanding of that content on required, largescale assessments (Cummins, 1982; Parker et al., 2009). A key implication of the present study is that educators must improve how they instruct ELLs by refining how they use language assessment data to develop quality instruction for academic performance (Keiffer et al., 2009).

Important to any student's success is the use of methods and strategies by the teacher to improve instruction according to the individual's need. Planning instruction that starts with the data from assessments informs the teacher of student needs. Valid and reliable assessments for ELLs are essential for teachers so they are not testing for language skills but rather content knowledge when working with ELLs. Educators can take advantage of the scores gathered by language assessments, such as the ACCESS, to develop quality instruction for their students. Promoting ELLs' academic literacy through differentiated instruction, such as identifying the language of the specific
content, using explicit language objectives, emphasizing academic vocabulary, including oral and academic talks, and giving students feedback on language use in the class are valuable strategies and methods to support language development for ELLs (Short \& Echevarria, 2005). Differentiating instruction based on an ELL's needs improves the chances of closing the learning gap (Short, 2000).

Another way to provide quality instruction is by using the data from the state exam, such as the MAP, to identify strengths and weaknesses of the students: "English language skills and performance on content assessments may help educators better assess how much low performance among ELLs is due to language limitations as opposed toor in addition to-true difficulties with the academic content" (Parker et al., 2009, p. 5).

Federal and state education policy makers must consider the current expanse of ELLs and their needs so schools can meet the demands of NCLB and other state mandates; therefore, funding should be appropriated to sustain English language learning. Standardized assessments must test for knowledge and less for language ability to give ELLs the opportunity to demonstrate what they know. Research-based training should be available to inform educators of quality instructional strategies and methods that improve all students' learning.

Professional development regarding the instruction of ELLs should be available to teachers, so they can become skilled at effective methods and strategies, such as SIOP, that will impact student achievement. Discussing current research methods and strategies will keep teachers learning and increase their effectiveness so they can respond appropriately to data provided by benchmark assessments. It would behoove school districts to provide professional development for educators to become highly qualified
facilitators of ELLs, as this population continues to increase, and federal and state mandates require these students to achieve academically as well as non-ELLs. The district could then develop their curriculum and programs to best meet the needs of ELLs. Interventions, strategies, and professional development could focus on increasing ELLs' language proficiency so they achieve on content assessments written in English. In addition, helping ensure success to future ELLs by making use of research-based academic programs, districts can expedite teacher learning so instruction is effective and high-quality for all students, thus meeting NCLB standards and doing what is best for students.

## Recommendations for Future Research

Further research conducted on how linguistic assessments indicate academic language proficiency can support district decisions about professional development for educators and language instruction within the classroom to close the achievement gap. Expanding research on this type of study enriches the understanding of how language development affects student outcomes on mandated assessments that influence accreditation and funding for schools.

The current study would be built upon by having a larger sample of ELLs to study. Using only one district to research whether ELLs scoring 5 or greater are as proficient on their language evaluation as their state mandated assessment may be a limitation to this study. It would be a recommendation that other schools with similar demographics and testing requirements be studied to see if similar results are achieved.

Another consideration for further research would be to conduct a longitudinal study with these same ELLs to see if they progress at the same rate as their non-ELL
peers. As ELLs gain years of language fluency, would they continue to do as well on content based assessments as non-ELLs? Continuing to follow the same students would provide rich information to the district on their programs supporting the language development of ELLs fostering proficiency in English and success in all four domains of learning. This information may also consider how levels of proficiency in reading, writing, speaking, and listening may be associated with achievement on content assessments (Parker et al., 2009).

This research examined a rural population of ELLs taking the ACCESS and the MAP. To add to this research, a study might be conducted state-to-state, between the ACCESS and other states' mandated tests. Information from this type of study would indicate if the ACCESS was valid and reliable across variances of populations and demographics.

Another consideration for research would be to examine the success of the four language tests developed through the enhanced assessment grants, financed under NCLB 2000, Title VI, to meet the requirements of Sections 3121 and 3122, to states' mandated assessments (Bunch, 2011). Of the four language tests funded, the ACCESS was one of the tests developed. The three other language assessments from this grant and the states' mandated exams could be administered in a similar manner as the current study. A study of this caliber would indicate which language test was the most successful at assessing language proficiency and academic content application. Given the increasing number of ELLs in the public school setting, and their large academic gap, additional research as to which language assessment best specifies proficiency in English is warranted.

## Summary

Language assessments have changed as state and federal policies pressure schools to be held more accountable for every student's achievement, even if those students do not speak the English language. The issue of language assessments to evaluate ELLs' proficiency in English has been debated for years among politicians, the public, and educators. As the country began taking notice of the number of ELLs enrolling in classrooms, the nation also began to realize these students had a plethora of needs that were not being met.

Data from mandated tests historically documented ELLs were not doing as well as non-ELLs. Poor outcomes on the high-stakes assessments set in motion laws requiring ELLs to achieve at the same level as English speaking students. While schools attempted to teach all students, ELLs were not always given adequate support to develop academic language skills for content knowledge. This was no fault of the teachers, as the increase of ELLs happened rather quickly, and few teachers had professional training on how to teach language skills for academics rather than social applications.

Studies in psychometric linguistic development helped researchers begin understanding how an individual acquires social and academic language. This research opened avenues for developing new methods to assess a student's language skills and truly know if they were proficient in the second language. Quality language assessments that test the skills of knowledge and not the language have a large impact on schools' ability to support ELLs.

The use of a quality, valid and reliable language assessment affects educator and district decisions on how to meet the needs of ELLs. Educators can use the data obtained
from current language assessments to develop quality instruction and differentiate for individual students. Ultimately, learning is an individual quest with many variables and is even more challenging when a second language is being cultured while trying to be successful in school. Districts can provide professional development to educators to improve instruction for all students and assuring the communities their schools are meeting the needs of their students while increasing achievement.

The purpose of this study was to determine the relationship between ELLs' scores on the ACCESS assessment and the communication arts and math scores on a statemandated exam. Both areas examined found a positive correlation between language assessment results and content-based exams. Also researched were the differences between ELLs' and non-ELLs' scores and proficiency levels on the MAP assessment. Discrepancies between each group's scores were statistically non-significant. Based on this research there is a definitive relationship between an ELL's language proficiency and his or her achievement on the MAP high-stakes test. These results also reinforce the WIDA's claim that quality language assessments can be used as a gauge for how well ELLs may achieve on high-stakes tests (WIDA Consortium, 2007).

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## Appendix A

## LINDENWOOD UNIVERSITY ST. CHARLES, MISSOURI

| DATE: | February 19, 2014 |
| :--- | :--- |
| TO: | Deborah Pearson |
| FROM: | Linderwood University Institutional Review Board |
| STUDY TITLE: | [503346-1] A Study on ACCESS Scores and MAP Data |
| IRB REFERENCE \#: |  |
| SUBMISSION TYPE: | New Project |
|  |  |
| ACTION: | APPROVED |
| APPROVAL DATE: | February 19, 2014 |
| EXPIRATION DATE: | February 19, 2015 |
| REVIEW TYPE: | Expedited Review |

Thank you for your submission of New Project materials for this research project. Lindenwood University Institutional Review Board has APPROVED your submission. This approval is based on an appropriate riskbenefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.
Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.
Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.
All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to the IRB.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the completion/amendment form for this procedure. Your documentation for continuing review must be recelved with sufficient time for review and continued approval before the expiration date of February 19, 2015.
Please note that all research reconds must be retained for a minimum of three years.

## Appendix A

If you have any questions, please contact Beth Kania-Gosche at (636) 949-4576 or bikaniagosche@lindenwood.edu. Please include your study title and reference number in all correspondence with this office.

If you have any questions, please send them to $\mathbb{R} B$ (2)lindenwood, edu. Please include your project title and reference number in all correspondence with this committee.

This lecter has boen electronically signed in ascetdance with all spplicabie regutajuess, and a copy is retained within Linderwood Inkuraty institutionsl Review Board's recordis.

## Appendix B

## Permission Letter for Superintendent

June 15, 2013
Dear Superintendent,
I am conducting a research project entitled, A Study on ACCESS Scores and MAP Data, in partial fulfillment of the requirement for a doctoral degree in instructional leadership at Lindenwood University.

The research gathered should assist in providing insights and perspectives into the correlation with ACCESS scale scores and the proficiency rate on the communication arts and Math scale scores of the MAP. If a student earns $5 \geq$ on the ACCESS, the data should show a significant rate of those students being proficient on the MAP. With these data the District can be confident that English Language Learners are obtaining a quality education.

I am seeking your permission as the superintendent of the District to use the 2010-2011 \& 2011-2012 MAP communication arts and math archival data and the 2010-2011 \& 2011-2012 ACCESS archival data as part of the data collection and analysis process.

Consent is voluntary, and you may withdraw from the study at any time without penalty. The identity of the participants, as well as the identity of the school district will remain confidential and anonymous in the dissertation or any future publications of this study.

Please do not hesitate to contact me with any questions or concerns about participation (by phone or electronic mail). You may also contact the dissertation advisor, Dr. Trey Moeller, for this research study by phone or electronic mail. A copy of this letter and your written consent should be retained by you for future reference.

Yours truly,
Deborah L. Pearson
Doctoral Candidate

## Permission Letter for Superintendent

I, , grant permission for Deborah Pearson to the District's ACCESS and MAP assessment data as part of a research project entitled, A Study on ACCESS Scores and MAP Data. By signing this permission form, I understand that the following safeguards are in place to protect the participants:

1. I may withdraw my consent at any time without penalty.
2. The identity of the participants, as well as the identity of the school district will remain confidential and anonymous in the dissertation or any future publications of this study.

I have read the information above, and any questions that I have posed have been answered to my satisfaction. Permission, as explained, is granted.

## Appendix C

| ELLStudent Grade | Number Coding | Non-ELL <br> Student Grade | Number Coding |
| :---: | :---: | :---: | :---: |
| 3rd | 3/1 | 3rd | 34 |
| 3rd | 18/2 | 3rd | 35 |
| 3rd | 4/3 | 3rd | 36 |
| 3rd | 22/4 | 3rd | 37 |
| 3 rd | 13/5 | 3 rd | 38 |
| 3rd | 24/6 | 3rd | 39 |
| 3rd | 14/7 | 3rd | 40 |
| 4th | 43/8 | 4th | 41 |
| 4th | 36/9 | 4th | 42 |
| 4th | 46/10 | 4th | 43 |
| 4th | 39/11 | 4th | 44 |
| 4th | 50/12 | 4th | 45 |
| 4th | 51/13 | 4th | 46 |
| 5th | 52/14 | 5th | 47 |
| 5th | 53/15 | 5th | 48 |
| 5th | 57/16 | 5th | 49 |
| 5th | 62/17 | 5th | 50 |
| 5th | 66/18 | 5th | 51 |
| 6th | 81/19 | 6th | 52 |
| 6th | 87/20 | 6th | 53 |
| 6th | 89/21 | 6th | 54 |
| 6th | 94/22 | 6th | 55 |
| 6th | 97/23 | 6th | 56 |
| 7th | 113/24 | 7th | 57 |
| 7th | 117/25 | 7th | 58 |
| 7th | 108/26 | 7th | 59 |
| 7th | 121/27 | 7th | 60 |
| 7th | 122/28 | 7th | 61 |
| 7th | 124/29 | 7th | 62 |
| 8th | 126/30 | 8th | 63 |
| 8th | 127/31 | 8th | 64 |
| 8th | 128/32 | 8th | 65 |
| 8th | 131/33 | 8th | 66 |

Note: Data coding to protect student information.

## Appendix D

Protecting Human Subject Research Participants
Page 1 of 1


## Vita

Deborah is a principal at an Early Childhood through second grade school in McDonald County School District. She is also the co-coordinator for McDonald County Bright Futures. Before becoming principal, Deborah was a Title I Reading teacher and a third grade eMINTS teacher.

Deborah earned both her Educational Specialist and Master's degrees in Administrative Education from William Woods University in Fulton, Missouri. Her Bachelor of Arts degree was earned from Missouri Southern State University in Joplin, Missouri. Deborah earned her Associates of Arts degree from Crowder College, in Neosho, Missouri. While teaching third grade in Noel, Missouri, she became a certified eMINTS educator.

Being an administrator of a highly diverse and successful school has fostered Deborah's interest in English Language Learners. The topic of linguistic development and how it affects academic learning stems from the challenge to meet the needs of current students with 11 different languages who come from a variety of countries. In order to help those students achieve in an English environment, it is imperative to know which are the best strategies, methods, and assessments to be used to promote learning for all students. The reason for this study was to inform, inspire, and provide current research for educators and other researchers.


[^0]:    *p<.05.

