Effects of LEP Status, Gender, Instructional Type on Positive Student Engagement and Motivation of Middle School Students

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EFFECTS OF LEP STATUS, GENDER, AND INSTRUCTIONAL TYPE ON ENGAGEMENT AND MOTIVATION OF MIDDLE SCHOOL STUDENTS

by

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Whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable – if anything is excellent or praiseworthy – think about such things. – Philippians 4:8.

As I journeyed through the process of writing this dissertation, I became acutely aware of my changing learning style and attentiveness. I realized that I worked better one hour a day rather than whole days at a time. I am grateful that all the people in my life allowed me these daily times to process the work that I had before me so that I could reach this goal. My late father-in-law, Archie Cothren, who was an American World War II hero encouraged me in my pursuit of higher education from an early age. He thought it would be wonderful to have a doctor in the family. My late father, Jimmy Steve Harris, who was a career educator and farmer is smiling with pride from heaven on this accomplishment because he taught me from birth that I could do anything I wanted to in this life if I worked hard enough. It is to these two fine gentlemen that I dedicate this dissertation. When I felt like giving up during this process, I would think of these two men and their perseverance and continue on the course I set for myself.

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Title: Effects of LEP Status, Gender, Instructional Type on Positive Student Engagement and Motivation of Middle School Students (Under the direction of Dr. Bruce Bryant)

The researcher used a causal-comparative, 2 x 2 factorial between-groups research strategy for all four hypotheses. The two independent variables for the Hypotheses 1 and 2 were gender and LEP status (students designated as LEP versus students not designated as LEP). The dependent variable for the first hypothesis was positive student engagement, and the dependent variable for the second hypothesis was positive student motivation. The two independent variables for Hypotheses 3 and 4 were gender and instructional type (traditional instruction and small group pull-out with hybrid computer-based instruction). The dependent variable for the third hypothesis was positive student engagement, and the dependent variable for the fourth hypothesis was positive student motivation. In Hypotheses 1 and 2, the researcher used fourth-, fifth-, sixth-, seventh-, and eighth-grade students at a district in Southwest Arkansas. In Hypotheses 3 and 4, the researcher used fourth-, fifth-, sixth-, seventh-, and eighth-grade students at a district in Southwest Arkansas. The researcher compared the students’ scaled scores from the Motivation and Engagement Scale (MES) instrument measuring positive student engagement and positive student motivation, respectively. The researcher used scaled
scores from the 2016-2017 school year. To address the hypotheses, the researcher conducted a 2 x 2 factorial between-groups ANOVA for each of the four hypotheses. The interaction effects for all four hypotheses were not significant. Therefore, the independent variables did not interact to significantly affect the dependent variables. The LEP status main effect for Hypotheses 1 and 2 did not significantly affect positive student engagement or positive student motivation, respectively. However, the main effect for gender in Hypotheses 1 and 2 did significantly affect both positive student engagement or positive student motivation, respectively. The female samples in both hypotheses, on average, scored significantly higher compared to the male groups in both engagement and motivation. Both of these significant results indicated small effect sizes. The main effects for gender and instructional type in Hypotheses 3 and 4 were not significant.
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CHAPTER I
INTRODUCTION

Throughout the history of the United States, the noble cause of the people has been to provide a public education for all the members of its society. John Adams, the second President of the United States, made the statement, “Education for every class and rank of people down to the lowest and poorest” (U.S. Department of Education, 2004). The task of educating the masses in this nation has been left traditionally to the individual states without much federal interference. The federal government became involved in the financing of public education when it created and passed monumental legislation such as the Elementary and Secondary Education Act of 1965. This act has been subject to several authorizations over the decades and was reauthorized in 2001 to include the No Child Left Behind standards and principles that guided educational reform to include accountability for student performance and teacher quality (U.S. Department of Education, 2004). In 2015, the law was re-authorized and entitled the Every Student Succeeds Act, using language that provided for the equitable education of all students despite the students’ disadvantages including Limited English Proficiency (LEP). The new re-authorization also provided more flexibility for the states to make determinations for the quality of education for its students (U.S. Department of Education, 2015). The federal government involvement in education reflects the motivation of the nation’s lawmakers to provide equity.
No Child Left Behind, as well as Every Child Succeeds Act, included many provisions that linked the school’s federal funding to the principles of accountability. These accountability principles included provisions for schools making adequate yearly progress by comparing one year’s test scores to the previous year’s test scores along with measures which contained rolling averages and confidence intervals. For instance, one year’s seventh graders were required to score higher than the previous year’s seventh graders. Governmental leaders viewed No Child Left Behind and adequate yearly progress as avenues to decrease the achievement gap between subpopulations and the general population (U.S. Department of Education, 2004). The test scores of subpopulations such as students who were LEP, students with disabilities, and students from poverty were reported on annual school report cards.

In the process of attempting to increase student achievement, schools began to study and isolate particular subpopulations that fell behind. The LEP population became one of the great roadblocks for academic achievement. The No Child Left Behind law stated in the executive summary that “after spending billions of dollars on education, we have fallen short in meeting our goals for educational excellence. The academic achievement gap between rich and poor, Anglo and minority is not only wide, but in some cases growing wider” (U.S. Department of Education, 2001, para. 6). The legal ramifications of the academic achievement gap dated back to 1954 and the historic Brown vs. The Board of Education of Topeka case in which the courts decided that separate but equal public schools for blacks and whites was unconstitutional. Another historic case that guided the federal government’s attention toward closing the achievement gap between LEP and non-LEP students was Lau vs. Nichols (1974) in which the courts
determined that equal educational opportunities were not provided simply by providing equal curriculum, teachers, and textbooks (Alexander & Alexander, 2012). Since this time, schools have been working toward a more equitable approach to educating the LEP population.

**Statement of the Problem**

This study investigated the effects of gender, LEP status, and instructional type on positive student engagement and positive student motivation as measured by the Motivation and Engagement Scale (MES). The purposes of this study were four-fold. First, the purpose of this study was to determine the effects by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district. Second, the purpose of this study was to determine the effects by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest Arkansas school district. Third, the purpose of this study was to determine the effects by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. Fourth, the purpose of this study was to determine the effects by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student motivation as measured by the
MES for middle school students designated as LEP in one Southwest Arkansas school district.

**Background**

A population in the United States that is gaining attention in the educational world is the LEP population. In the school setting, educators are challenged each day with educational accountability and the issues that surround these students who have not attained the English language skills necessary to perform adequately in the American classroom. Holfeaster (2015), reported, “English as a Second Language (ESL) is defined as the formal instruction of English to those (usually immigrants, international students, or refugees) whose native language is not English but who live in an English speaking country” (p. 1). There are numerous approaches to provide this instruction for this subpopulation of students. ESL provides students with the skills necessary for reading, writing, speaking, and listening, so they can succeed in the new host country.

A series of laws have been created to help ease the disparity in academic achievement between the LEP population and the general population in education. The No Child Left Behind law states,

…limited English (LEP) students need to master English as quickly as possible. To accomplish this goal, states and school districts will need to be held accountable for making annual increases in English proficiency from the previous year. Moreover, they will be required to teach children in English after three consecutive years of being in school. (U.S. Department of Education, 2001, para. 21)
As schools have striven to meet the rigors of these mandates, they have searched and researched the best ways to provide English acquisition education as quickly as possible. Delivery methods of instruction such as small group pull-out classes and sheltered English with or without inclusion classes are commonly found in most educational settings. Instructional methods and curricula are used and range from individual silent reading strategies to teacher-led instruction to computer-based instruction and hybrids of these (Holfester, 2015). The debate exists among the experts between which instructional type and setting are best to serve this population to lead to higher levels of student engagement and motivation, thus better student achievement.

Instruction in small group pull-out classes has served as an environment for ESL education for decades. In his research, Holfester (2015) explains the issues surrounding ESL learners by labeling the student’s primary language as L1 and the student’s target language as L2. According to Holfester,

In this placement, students are removed from the classroom for one to two periods for specific ESL instruction in small groups. For the rest of the day the ESL learners are mainstreamed with native L2 speakers in a traditional classroom setting. Separation through ESL pull-out allows the ESL learner to assimilate and adapt while still being treated as a unique population with special needs. (p. 5)

Usually, instruction time ranges from 15 to 90 minutes. The state of Kansas reports the average pull-out time for students is 42 minutes of ESL instruction per day (Cornell, 1995). The variations in time are generally determined by the individual schools as determined by the needs of the students.
Instruction via sheltered English classes for ESL students assists with the transition of ESL classes to the mainstream curriculum by monitoring the “same content as a traditional class but in a way that relates directly to the special linguistic needs of the ESL learner. Sheltered or linguistically enhanced, courses are designed to make traditional mainstream classes more obtainable for the ESL population” (Holfester, 2015, pp. 5-6). Sheltered instruction provides a less restrictive environment than the small group pull-out, and sheltered instruction allows for the students to be exposed to the general curriculum and at times the general population of students. Sheltered instruction can be expected to “contribute to English language development, but its real focus is academic content and skills” (Goldenberg, 2013, p. 40). Both settings for instruction rely heavily upon the culture and climate of the classroom to generate the motivation necessary for greater academic attainment.

The inclusion instructional environment is one less restrictive mode for the LEP population in a school to attain English acquisition. Holfester (2015) explained that inclusion is another instructional environment used by schools to meet the needs of LEP students. With inclusion, the students are completely mainstreamed into the traditional classroom setting while receiving prescribed interventions from an ESL specialist or other methods. Also, teachers in this setting normally do not treat the LEP student differently from the other students in the class, and the students engage in conversations pertaining to the curriculum with the native speaking students. The students are treated equally in this setting and are expected to become immersed in the language quickly.

Computer-based instructional practices have become a popular mode of instructional delivery especially since numerous vendors exist that vie for school
business. In a study by Kulik and Kulik (1991), computer-based instruction was traced to its inception and followed throughout the late 20th century. The researchers found that computer-based instruction programs have been used with increasing frequency and quantity in classroom settings to replace more traditional instructional techniques. The positive aspects of computer-based instruction include reducing educational costs and enhancing the educational experience and outcomes for students. The study predicted that computers and computer-based instruction will one day take the role of personal tutors for students. Computer-based instruction techniques, curricula, and delivery systems have greatly improved since this study to a point in which the prediction is more a reality. Technology in the form of computer-based instruction is used in helping LEP students develop language skills including reading fluency and comprehension.

Literacy attainment is enhanced by some computer-based instructional programs. Ybarra and Green (2003) report that computers provide instruction rich in vocabulary, context clues, and visual cues. Students can increase language attainment by becoming active learners in a one-to-one environment. Various learning strategies and styles can be accommodated by using computer-based instruction. Students realized some success when reading texts based primarily upon content using technology and computer programs. These programs provided immediate feedback for the struggling English language readers as well. The immediate feedback for the struggling reader can also prove helpful in increasing engagement in the classroom.

The southwest Arkansas School district featured in this study used READ 180 and Lexia computer-based instructional programs. The research for READ 180 is extensive as the program is one used by many schools with high LEP populations. Daggett and
Hasselbring (2007, 2014) report that the Scholastic READ 180 developed by Hasselbring is “a comprehensive reading intervention program that directly addresses individual needs through adaptive and instructional software, high-interest leveled literature, and direct instruction in reading and writing skills” (p. 8). Six crucial elements of the READ 180 program include a scientific research base, proven results, comprehensive instruction, purposeful assessment, data-driven instruction, and professional development. READ 180 incorporates computer-based instruction along with classroom strategies that are teacher driven to help the struggling adolescent reader, as well as the English Language Learner (ELL), develop more mastery of reading (Daggett & Hasselbring, 2007, 2014). Many hybrid computer-based instructional programs are available currently. Lexia by Rosetta-Stone is another program used within the Southwest Arkansas school district. According to Macaruso and Rodman (2011), the Lexia program “provides students with practice in building phonological awareness skills and learning basic letter comprehension-sound mappings” (p. 303). This program branches into scaffolded versions that build earlier skills on current skills that lead into future skill attainment. This software is also used to reinforce and apply skills through systematic progression and independent practice (Marcaruso & Rodman, 2011). Blended learning along with the use of the computer-based instruction can have positive influences on increased student engagement and motivation. These such hybrid models help the students with their reading skills using the computer-based program that provides numerical and statistical data, and they help the students with their interpersonal skills and communication by including a variety of classroom strategies that can be teacher-led.
Hypotheses

An initial review of the literature suggested that the instructional delivery atmosphere of sheltered English inclusion classes provides a greater language acquisition rate than small group pull-out classes; however, the research is somewhat ambivalent concerning educational atmosphere as the atmosphere pertains to student engagement and motivation. Engagement and motivation are critical factors in student achievement for all students and especially LEP students. While the students progressed at different rates, the immersion in the English language that the sheltered English classes provided produced more growth in achievement than did the small group pull-out classes. The review of the literature concerning computer-based instruction suggested that students using hybrid computer-based instructional programs displayed greater levels of engagement and motivation. The link between student engagement and motivation to student achievement for this population is suggested in the literature as well. Therefore, the researcher developed the following null hypotheses.

1. No significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district.

2. No significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest Arkansas school district.
3. No significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district.

4. No significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student motivation as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district.

**Description of Terms**

**Classroom Environment.** Miller and Cunningham (2011) define classroom environment as a range of concepts that includes physical setting, psychological settings, and instructional components that are related to teacher characteristics.

**Computer-based Instruction.** Kulik and Kulik (1991) define computer-based instruction as the utilization of computer software used to “drill, tutor, and test” students in a curricular area (p. 75).

**English as a Second Language (ESL).** The U.S. Department of Education (2016) defines ESL as “a program of techniques, methodology, and special curriculum designed to teach ELL students English language skills, which may include listening, speaking, reading, writing, study skills, content vocabulary, and cultural orientation” (para. 7).

Hybrid Computer-based Instruction. Daggett and Hasselbring (2007) define hybrid models as the utilization of computer-based software for instruction along with a mixture of direct instructional strategies.

L1. Holfester (2015) defines L1 as the primary or native language of the students.


Limited English Proficient (LEP). According to the U.S. Department of Education (2001), LEP is defined as ELLs whose native language is not English.

No Child Left Behind. According to the U.S. Department of Education (2001), No Child Left Behind is defined as the blueprint for educational reform signed into law by President George W. Bush that includes improving academic performance of disadvantaged students, boosting teacher quality, moving LEP students to English fluency, promoting informed parental choice and innovative programs, encouraging safe schools for the twenty-first century, increasing funding for aid, and encouraging freedom and accountability.

Sheltered English Inclusion Instruction. Holfester (2015) defines sheltered English classes as classes that assist with the transition from ESL to mainstream curriculum by reviewing the same content as a traditional class but in a way that relates to the special linguistic needs of the ESL learner.

Small Group Pull-Out Instruction. Holfester (2015) defines ESL pull-out as instruction in which “students are removed from the classroom for one to two periods for
specific ESL instruction in small groups. For the rest of the day, the ESL learners are mainstreamed with native L2 speakers in a traditional setting” (p. 5).

**Student Engagement.** According to Saeed and Zyngier (2012), engagement refers to the degree of interest or attention a student has in the classroom.

**Student Motivation.** According to Saeed and Zyngier (2012), student motivation explains what makes a person act in a certain way or do certain things in the classroom.

**Significance**

**Research Gap**

Schools are challenged daily by numerous problems. Two of these problems are a lack of resources in staff and a lack of instructional materials. Echevarria, Frey, and Fisher (2015) report that small group pull-out instruction requires extra staff members to provide the instruction to small ratios of students. In schools where resources are scarce for properly certified staff, small group pull-out instruction is not normally feasible. Also, the students are not exposed to the general education curriculum that the L2 population is learning; thus, the achievement gap can widen. Sheltered English inclusion instruction involves ESL instruction along with the instruction of the general education curriculum. The students can be in larger groups and can also be included in the mainstreamed classroom for part of the instruction. Some of the research revealed that higher expectations for ELLs resulted in higher achievement levels. The expectations can sometimes increase the motivation and achievement of the students.

Meaningful utilization of small group pull-out class time is important to the success of the pull-out program. Cornell (1995) states that gaps in the research can be found when using small group pull-out instruction if the time allotted is used primarily
for general curriculum homework. Problems also arise when the time allotted is too short or insufficient to achieve higher language acquisition and reading comprehension. The fear of segregation from the mainstream is another factor that can contribute to fewer numbers in pull-out classes.

Numerous computer-based instruction programs are on the market, as educators see daily via email, salespeople, regular mail, and phone calls. Scholastic READ 180 is not the only program that helps to increase student achievement in reading but is one that has proven results with numerous years of research. READ 180 is a hybrid model that incorporates computer-based instruction with teacher-driven instruction to help students’ achievement levels (Daggett & Hasselbring, 2007, 2014). The separation of the instructional type can become problematic when the two are continually blended in the classroom which makes the research more difficult to separate.

**Possible Implications for Practice**

Because of this study, educators in Arkansas can use this as information to consider whether to purchase READ 180 or other types of computer-based instruction curricula and whether to address the needs of the LEP population through small group pull-out instruction or sheltered English inclusion classes. If the results of this study indicate that computer-based instruction makes a significant difference in student engagement and motivation, educators can determine if additional funding for the computer-based instruction program READ 180 or other similar curricula is a valid allocation of funding. They may choose to purchase this program to assist in preparation for the LEP students in the ACT Aspire examination in Arkansas. In addition, educators can use the results of this study to determine if small group pull-out instruction or
sheltered English inclusion instruction is the most effective instructional environment and delivery method and implement one or both. If there are no significant gains in student engagement and motivation after using specific computer-based instructional programs, educators may choose to research other computer-based instructional programs. If no significant gains in student engagement and motivation are noticed between the two instructional types, then educators may choose the least cost prohibitive delivery method.

**Process to Accomplish**

**Design**

The researcher used a causal-comparative, 2 x 2 factorial between-groups research strategy for all four hypotheses. The two independent variables for the Hypotheses 1 and 2 were gender and LEP status (students designated as LEP versus students not designated as LEP). The dependent variable for the first hypothesis was positive student engagement, and the dependent variable for the second hypothesis was positive student motivation. The two independent variables for Hypotheses 3 and 4 were gender and instructional type (traditional instruction and small group pull-out with hybrid computer-based instruction). The dependent variable for the third hypothesis was positive student engagement, and the dependent variable for the fourth hypothesis was positive student motivation.

**Sample**

In Hypotheses 1 and 2, the researcher used fourth-, fifth-, sixth-, seventh-, and eighth-grade students at a district in Southwest Arkansas. The researcher identified students designated as LEP, students not designated as LEP, and their gender. Next, the researcher formed four groups for the comparison: male students designated as LEP,
female students designated as LEP, male students not designated as LEP, and female 
students not designated as LEP. Finally, the researcher compared the students’ scaled 
scores from the MES instrument measuring positive student engagement and positive 
student motivation, respectively. In Hypotheses 3 and 4, the researcher used fourth-, fifth-
, sixth-, seventh-, and eighth-grade students at a district in Southwest Arkansas. The 
researcher identified all the students designated as LEP and grouped them by gender and 
by instructional type (students taught in inclusion classes with traditional instruction 
versus students taught in small group pull-out classes with hybrid computer-based 
instruction). Next, the researcher formed four groups for the comparison: male students 
taught in inclusion classes with traditional instruction, female students taught in inclusion 
classes with traditional instruction, male students taught in small group pull-out classes 
with hybrid computer-based instruction, and female students taught in small group pull-
out classes with hybrid computer-based instruction. Finally, the researcher compared the 
students’ scaled scores from the MES instrument measuring positive student engagement 
and positive student motivation, respectively. The researcher used scaled scores from the 
2016-2017 school year.

**Instrumentation**

In the fall of 2000, the middle school used in the study began providing ESL 
instruction for students designated as LEP via inclusion classes with traditional 
instruction (sheltered English inclusion) or small group pull-out classes. In the fall of 
2010, the middle school began providing ESL instruction for LEP students by small 
group pull-out classes using computer-based instruction. In the spring of 2017, all 
students enrolled in the fourth, fifth, sixth, seventh, and eighth grades took the MES,
which measured positive student engagement and positive student motivation. The researcher compared the difference in scaled scores between students designated as LEP and non-LEP, students categorized as male or female, and students designated as LEP students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction.

**Data Analysis**

To address the hypotheses, the researcher conducted a 2 x 2 factorial between-groups ANOVA for each of the four hypotheses. The independent variables for Hypothesis 1 were gender and LEP status, and the dependent variable was positive student engagement as measured by the MES. The independent variables for Hypothesis 2 were gender and LEP status, and the dependent variable was positive student motivation as measured by the MES. The independent variables for Hypothesis 3 were gender and instructional type, and the dependent variable was positive student engagement as measured by the MES. The independent variables for Hypothesis 4 were gender and instructional type, and the dependent variable was positive student motivation as measured by the MES. To test the null hypotheses, the researcher used a two-tailed test with a .05 level of significance. A Bonferroni correction was used to adjust the probability value because of the increased risk of type I errors that are likely when performing multiple statistical tests (Morgan, Leech, Gloeckner, & Barrett, 2012); therefore, the adjusted significance level was .0125 (.05/4).
CHAPTER II

REVIEW OF RELATED LITERATURE

Throughout the nation, educators endeavor to increase student achievement and engage in continuous improvement for all populations of students. Through this effort, educators realize that this task is as reliant upon the students themselves as the task is on the teachers. According to Saeed and Zyngier (2012), students who succeed are students who are motivated to succeed and engaged in the learning. Student motivation to learn increases student engagement in the classroom. These two factors combined increase student achievement over time. Students with skills to learn are capable of learning, but students with wills to learn are motivated to actively engage in the classroom. The engagement piece leads to higher skill attainment and greater levels of achievement. Motivation is the factor that makes a person act in a certain way or do certain things. Engagement refers to the degree of interest or attention a student has in the classroom. Motivation and engagement can be affected by numerous different factors. In his research, Schlechty (2014) stated, “Students who are engaged…learn at high levels and have a profound grasp of what they learn. Retain what they learn. Can transfer what they learn to new contexts” (p. 8). This research indicated that motivated and engaged students tend to have higher rates of student achievement regardless of their personal traits or qualities. Motivation in the classroom is a necessary aspect that inspires students to
complete both simplistic and difficult tasks and appears to be the driving force for success throughout their educational experiences.

While educators are allowed certain autonomy in their classrooms, both state and federal governments have become increasingly involved in the process. Although the task of educating the masses of the American society was primarily left up to the individual states, the federal government has become increasingly concerned with this task (Alexander & Alexander, 2012). Motivation and engagement have become increasingly critical for all subpopulations of students due to the entanglement of the federal government in the educational process in the United States. The educational practitioners throughout the history of the United States have striven to meet the needs of the students in their classrooms to instruct them to reach higher levels of achievement. The federal government has become increasingly involved in legislating education for the entire nation, beginning with the Elementary and Secondary Education Act of 1965 to the reauthorizations with No Child Left Behind in 2001 and the Every Student Succeeds Act of 2015 (U.S. Department of Education, 2004). With these series of federal acts, accountability for schools and educators to meet specific criteria for all groups of students has emerged. The federal government now demands that all students, despite language proficiency, socioeconomic status, gender, race, ethnicity, or disability, perform on standardized tests at high levels of proficiency.

One of the subpopulations that emerges as a particularly challenging group with unique problems is the LEP subpopulation. In his research, Bozburun (2011) proposed that this group of students is faced with daily challenges such as learning a new language, mastering a rigorous curriculum in a variety of subjects, and immersing into a new and
different culture. He noted that different types of instructional strategies exist to instruct students who are LEP including computer-based instruction and other traditional types of teacher-centered instruction. Furthermore, Bozburun argued that different types of educational settings exist to instruct these students as well. Two such settings or environments are known as small group pull-out and inclusion. Students are sometimes placed into one of these educational environments with one or all the interventions or instructional types being used. Bozburun emphasized that the instructional environments and types are applied in a variety of combinations from school to school and state to state.

The present study was conducted to determine whether LEP status, gender, educational environment, or educational type influenced the motivation and engagement of students. As schools strive to meet the demands of the federal laws and ensure that the subpopulations are mastering the curriculum and achieving at levels of proficiency, the importance of appropriate motivation and engagement become apparent. Literature that relates to effective instructional practices including each of these components was reviewed to determine the outcomes.

**Student Motivation and Engagement**

**Effects of Motivation on Student Achievement**

For a student to succeed in the classroom setting, the student needs to have a certain amount of desire to succeed. Cambria and Guthrie (2010) referred to motivation as the “values, belief, and behaviors” (p. 16) within an individual to do or not to do something. The term also included the level of productivity that leads to excitement or determined hard work (Cambria & Guthrie, 2010). In the educational setting, motivation
refers to the student’s desire to study or perform his or her schoolwork and the level or
degree to which the student wants or desires to perform these tasks. Ryan and Deci
(2000) described the importance of motivation as a phenomenon that reflects the positive
potential of human nature. They defined intrinsic motivation as “the inherent tendency to
seek out novelty and challenges, to extend and exercise one's capacities, to explore, and
to learn” (p. 70). The importance of motivation, especially intrinsic or self-directed
motivation, is apparently a vital aspect for students to possess for learning new material
and acquiring new skills. Cambria and Guthrie (2010) related motivation to the term will.
Their article referred to skill and will and described successful students as ones who were
gaining in skill and motivation as well. The desire to learn is perhaps more important than
the skills necessary to learn because new skill attainment cannot occur without the
motivation to attain such skills.

Interest, confidence, and dedication are indicators of motivation. According to
Situational interest is a fascination with a detail in the here and now. Situational interest
can become enduring if it recurs with teacher continuing support” (p. 17). The
researchers noted, “Belief in yourself is more closely linked to achievement than any
other motivation throughout school” (p. 17). Confidence is generated by a belief in
oneself and relates to student success in the classroom. Students who struggle lack the
confidence to believe they can learn, and these students tend to allow this belief to
overtake them. Motivation also refers to dedication to a project or assignment in the
classroom. Students who are motivated to succeed will progress tenaciously through the
multi-step problems or projects assigned to them. Learning new material only serves to
challenge the motivated student (Cambria & Guthrie, 2010). Apparently, the breakdown of motivation into interest, confidence, and motivation provides needed insight into the development of student motivation for classroom purposes.

**Effects of Motivation on School Climate**

Student motivation affects the climate of the classroom and the entire school. According to Cambria and Guthrie (2010), “Students who seek to cooperate with the teacher and help other students academically, consistently get better grades than students who are less socially adept” (p. 24). Motivated students who want to learn and work to complete their classwork help to create a positive culture within the classroom and the school as a whole. According to Furrer, Skinner, and Pitzer (2014), “Over time, warmth, structure, and autonomy support from teachers and peers not only operate as social resources but also help students to construct their own personal motivational resources by promoting positive self-perceptions of relatedness, competence, and autonomy” (p. 107).

Academically productive classrooms are populated with students who are motivated, dedicated, confident, and interested. Classrooms with numerous students who are negative, antisocial, and antipathetic are not as productive (Cambria & Guthrie, 2010). An atmosphere of trust between teacher and student builds the success needed for the classroom to be a positive and comfortable place for students to fully engage. The principal of an academy asserted to Cambria and Guthrie (2010):

> Students tend to work harder for teachers they like and put little effort into classes where they feel disconnected and misunderstood. Strategic instruction within classroom contexts where students feel they belong plays an integral role in
learning. Students put more effort into learning when they have a relationship with their teachers; they don’t want to let their teachers down. (p. 24)

Climate in the classroom, whether negative or positive, directly affects the rate of student involvement and achievement. Motivated students can greatly contribute to the environment of the classroom and influence other students to become motivated, which leads to positive classroom climate.

**Effects of Engagement on Student Achievement**

Student engagement is important in the classroom environment for student achievement to increase. Schlecty (2002) contends, “Engagement is active. It requires the students to be attentive as well as in attendance; it requires the students to be committed to the task and find some inherent value in what he or she is being asked to do” (p. 64). Accordingly, the engaged student does the assigned work with a level of enthusiasm and perseverance that produces results. In essence, student engagement refers to the degree of interest and involvement students exhibit in the classroom setting. Student engagement, therefore, encompasses many sensory and emotional aspects of learning. According to Saeed and Zyngier (2012):

Student engagement recognizes the complexity of engagement beyond the domains of cognition, behavior, emotion or affect, and in doing so encompasses the historically situated individual within their contextual variables (such personal and familial circumstances) that at every moment influences how engaged an individual (or group) is learning. (p. 252)

Student engagement at all grade levels is a critical element for success in the educational setting. Many factors influence engagement, including motivation. Students’ desires to
attend in the classroom, to complete the tasks at hand, and to extend the learning by personalization are important elements of active engagement.

Student engagement related to student achievement and especially increased student achievement is a complex subject. Some experts contend increasing and improving engagement is the responsibility of the teacher, while others believe this is the responsibility of the student. Zyngier (2007) recognized this two-fold argument in his research and reported, “Engagement is, by and large, viewed as the responsibility of the teacher. But if the student is disengaged then the problem is with the student” (p. 97). He further reported that the larger culture of the student such as socioeconomic status, gender, and ethnicity holds some responsibility in the level of engagement. Zyngier noted, “Much of the research essentializes engagement, portraying it, and the academic success that accompanies it, as a function of the individual, ignoring the contribution of gender and socio-cultural, ethnic, and economic status (class) factors” (p. 97). Motivation alone is necessary for student achievement, but engagement of the individual student, with all the factors that influence this, is a critical element to further increase achievement.

**Effects of Engagement on School Climate**

Engagement affects the classroom environment because this impacts the teacher-student relationship and the student-peer relationship. Classroom climates are based upon relationships within the members of the classroom. Furrer et al. (2014) stated, “Student–teacher and student–peer relationships inherently include self-sustaining engagement in high-quality teaching and learning, characterized by focused enthusiastic hard work and constructive responses to obstacles and setbacks, or motivational resilience” (p. 111).
This research continued to discuss the relationships within the classrooms that do not work referring to distrust, dishonesty, discouragement, and burnout. Therefore, according to the research, the level of student engagement within the classroom has influence over whether the atmosphere is positive or negative.

**Students with Limited English Proficiency**

**History in American Classrooms**

American schools are comprised of multitudes of immigrant students. Many of these students do not speak English, speak limited English, or speak a language other than English in the home. According to U.S. Department of Education (2015), the ELL is defined as “national-origin-minority students who are Limited-English-Proficient” (para. 1). ESL is defined as,

A program of techniques, methodology and special curriculum designed to teach ELL students English language skills, which may include listening, speaking, reading, writing, study skills, content vocabulary, and cultural orientation. ESL instruction is usually in English with little use of native language. (para. 1)

The LEP and ELL designations can be used synonymously, and ESL instruction can take place in either language but usually in English.

Since the time of *Brown v. Board of Education of Topeka* in 1954, the United States educational system has been required to provide educational opportunities that reduce the academic achievement gap between minorities and the majority. Separate but equal was declared to be unconstitutional. Another historic case that has guided the federal government’s attention toward closing the achievement gap between LEP and non-LEP students is the *Lau vs. Nichols* (1974) case in which the courts determined that
equal educational opportunities were not provided simply by providing equal curriculum, teachers, and textbooks (Alexander & Alexander, 2012).

The No Child Left Behind legislation has placed greater accountability on the public school system to provide solutions for reducing and eradicating the achievement gap between the LEP and non-LEP student (U.S. Department of Education, 2004). Under the No Child Left Behind legislation, students are counted as LEP status for up to two years after the designation as fully English proficient. Once the two years elapse after designation, the students enter the general education classroom without supports (Francis & Rivera, 2006). The new legislation signed into law in 2015 by President Obama was titled the Every Student Succeeds Act. This law has become the latest revision of the Elementary and Secondary Education Act, which was enacted 50 years ago. This act “advances equity by upholding critical protections for America’s disadvantaged and high-need students; and requires-for the first time-that all students in America be taught to high standards that will prepare them to succeed in college and careers” (U.S. Department of Education, 2015, para. 2). Clearly, great responsibility is placed upon the schools in the American educational system to find the best practices for educating the LEP student and providing the interventions necessary for this population to attain language proficiency in a timely manner.

**Cultural Differences**

When students immigrate to the United States, they are expected to enroll in school immediately before any of the cultures, norms, and behaviors of the United States have been learned. These students have oftentimes been exposed to completely different social mores and do not understand the behaviors of the new culture they have entered.
According to the Virginia Department of Education (2006), “LEP students often come from cultures that have different norms about interacting with other people” (p. 13). Some examples of differing cultural norms are avoidance of eye contact, closing in on personal space, girls holding hands with each other, and wearing differing styles of clothing (Virginia Department of Education, 2006). Proper instruction with sensitivity to the native culture of the LEP students is important and falls into the responsibilities of the classroom teachers. When necessary, the teacher will also educate the other students in the classroom about the culture of the newcomer.

**Learning Strategies**

Methods of instruction for LEP students must certainly vary from the general population of students. Given the cultural and linguistic differences, the LEP student faces numerous challenges when entering the American classroom. Many of them are not familiar with collaborative activities, active participation, and heterogeneous classrooms (Virginia Department of Education, 2006). LEP students struggle to measure up with peers, perform poorly on state mandated tests, and often drop out before completing high school. Interventions and instructional practices designed to mitigate the difficulties must be employed if these students are to be successful. Asserted by Bozburun (2011), mainstream classes provide students with rich linguistic interactions through written mode, but limitations do exist. The level of work is not always as rigorous as expected nor does the work match grade level expectations. The assignments tend to be simplified or modified by the teacher for more successful outcomes. Bozburun states that LEP students generally lack the academic vocabulary necessary to understand the content of the classroom. Given the cultural and linguistic differences, the LEP student faces
numerous challenges when entering the American classroom. Many of them are not familiar with collaborative activities, active participation, and heterogeneous classrooms. These students need immersion into the vocabulary from multiple sources as well as English language instruction to gain clarity.

ESL is the instruction of English for LEP students in a specialized English instructional self-contained classroom. According to Myroup (2011), this approach provides the student with English immersion that removes the student from the regular classroom and places him or her into a specialized classroom to teach reading and writing, and give aid in other subjects. Students’ times can be divided between these pull-out classes and the general education classes to allow the students interaction time with peers. Furthermore, another strategy for ESL instruction is referred to as sheltered instruction or “Specially Designed Academic Instruction in English” which “highlights grade appropriate, cognitively demanding core curriculum for English learners who have achieved an intermediate or advanced level of English proficiency” (Myroup, 2011, p. 94). Rather than simplifying the material, the teachers can reduce the amount required while the students are still exposed to the rigorous work the general population is learning.

Inclusion, mainstreaming, and separation are three of the main caveats for providing the ESL instruction required by law for the LEP population. Holfester (2015) contended, “Among the unresolved issues in the ESL community are inclusion, mainstreaming, and separation” (p. 1). The argument of the best practice is widespread in the United States. Holfester also reports that the curriculum offered in the United States for ESL relies upon five fundamental areas: reading, writing, grammar,
speaking/conversation, and listening. This researcher referred to the native language of the LEP student as his or her L1 language and the target language as his or her L2 language. He offers the following factors that instructors consider: age, native language, L1 literacy of the parents, and reason for immigrating.

**Roadblocks**

LEP students face roadblocks in the school setting that are primarily based upon the structure of the American school system. The American school system provides access to specialty instruction in most cases, but sometimes, the interventions end with access only. Access strategies are important for LEP students, but these strategies cannot be the end of the instruction. LEP students face roadblocks to educational success in a variety of ways. First, the comparison of the LEP student’s achievement to the mainstream curricula student’s achievement (where the standards are rigorous and college-oriented) creates a disconnect for the LEP student. Indicated in research by Cornell (1995), “Evaluation against criteria established for mainstream students that relies heavily on English language skills or overlooks individual progress is likely to lock LEP students into a failure mode with little chance for escape” (p. 6). When the LEP students must take examinations that are heavily reliant on their understandings and comprehensions of the English language and do not assess their progress in attaining this language, the students face what they perceive as failure after failure. Another challenge for LEP students in the traditional American school setting refers to the learning styles of the students. According to Cornell,

Many LEP students come from cultures where teaching and learning styles differ from those common in the United States and may have difficulty responding well
to some of our popular classroom practices. Many styles in the U.S. reflect
technological advances and classroom materials and facilities often not available
in other countries. (p. 6)
Therefore, American educational practices such as large research projects, media
projects, computer-based assignments, among other higher order skills can be foreign
concepts to many LEP students who have been exposed to primarily lecture-style
instruction.
Many LEP students face roadblocks that are more personal than the classroom or
the school setting. According to Cornell (1995), these students come from families in
which parental participation in the educational process is minimal at best. These parents
are reluctant to attend school functions and are many times uneducated themselves. Many
of these students also come from poverty conditions in which the students work at night,
or the home is not conducive for homework or other school related activities to occur.
Motivation and engagement for this population of students can be a challenge for the
educational practitioner. The students face daily challenges that many teachers do not
realize or know how to address in the classroom.

Gender

The roles of men and women in worldwide society have an impact on education
and the individual classroom. Gender has an effect on the pace, rate, and style that a
student learns. Gender has a much deeper meaning with more implications than simply
the biological chromosomes with which one is born. In an article for the Institute for
Latino Studies at the University of Notre Dame, Knapp, Muller, and Quiros (2009),
defined gender as, “the social attributes, opportunities, and relationships that are
associated with being feminine or masculine” (para. 1). These authors explain some larger implications that society places on gender. They iterate that society rather than reality determines valued behaviors and dictates expectations of men and women. The authors also report that behavioral norms defined by various forces in society today are affected by gender norms, and that the ideas of male and female attributes do not exist independently of each other. The impact of gender upon education, specifically, learning styles, motivation, engagement, and brain differences has a much larger context that affects the students from the time of birth, during their early home life, and throughout their educational careers.

**Learning Styles**

Many educational practitioners deal with gender learning style differences in a variety of ways, using many instructional strategies that create varied results. In the book *Closing the Achievement Gaps*, Gurian and Stevens (2004) reported that for years, boys and girls in their classrooms learned in gender-specific ways. They indicated in the research to say that boys tended to need more physical learning spaces and could be less organized. Girls had better verbal skills and understood feelings and emotions better. Bonomo (2006) concluded, “There are significant differences in how boys and girls learn” (p. 263). She suggested strategies for both boys and girls for classroom implementation. Some of the strategies for boys were shorter, more actively involved lessons with less written tasks and more challenges, allowing more physical outlets for their aggression, and more kinesthetic and experimental lessons with varieties of manipulatives. Some strategies for girls included working in groups, facing one another in activities that allowed them to help the instructor, using softer tones in sound, tying
lessons to emotions with descriptive phrases, and using bold colors, overheads, and puzzles in the instruction. The mental focus of males seemed to be very different from females, which through differentiation in the classroom by the teacher, can result in higher achievement.

Much of the research reveals that this gender differential is consistent throughout all socioeconomic statuses, racial groups, and ethnicities. Sax (2006), contended, “Girls tend to be more aware of what’s going on around them than boys” (p. 42). He continued to say that the gender issue is important to learning in the classroom in several ways. Young boys in the United States view school as stupid and say they do not like to read. Demographic groupings do not seem to make a difference in this attitude of young males in the United States. As proposed by Torres (2014), Latino girls learned best if they could relate the information to their lives, whereas boys learned best with abstract concepts and theories. Gender differences in learning styles seem to be an equalizer among all demographics including language acquisition and ethnicity.

**Motivation and Engagement**

Motivation and engagement related to gender are reliant upon many factors such as the subject studied, the environment of the classroom, and the pace and progression of the lesson. Gurian and Stevens (2004) reported that research into gender and its interactions with education reveal a disconnect between the gender-specific needs of the students and the delivery in the classroom. They continued with the premise that schools, both structurally and functionally, fail to recognize and attend to these gender-specific needs. According to Schwabe, McElvany, and Trendtel (2014), “School achievement studies consistently demonstrate higher levels of reading achievement and intrinsic
reading motivation in female students than males” (p. 219). A gender gap that correlates to an achievement gap is emerging, and motivation and engagement are interrelated.

An international group of researchers used the 2009 Program for International Student Assessment (PISA) to determine some generalities about reading, gender, and engagement. Brozo et al. (2014) reported, “Consistent with earlier PISA cycles, there were significant gender differences in favor of girls on overall print reading in all 65 counties in PISA 2009. Moreover, gender differences increased over PISA cycles” (p. 586). These researchers deduced that girls performed better than boys on several portions of the assessment dealing with reading. The compendium of researchers conducted a student questionnaire along with the assessment to determine levels of engagement. These questionnaires included questions concerning the level of enjoyment the students derived from reading, the time spent in reading strictly for enjoyment, and the diversity of the texts being read. Girls scored significantly higher in all three areas of the questionnaire, thus, leading the researchers to draw the conclusion that a correlation exists between enjoyment or engagement and achievement on the assessment (Brozo et al., 2014). Girls seemed to be more motivated than boys in reading, literary pursuits, and the enjoyment of reading. This finding also crossed all demographic barriers.

Conversely, a study by Weber (2012) into science, technology, engineering, and mathematics (STEM) activities revealed a different caveat. According to Weber, male students are more interested in technology and engineering activities in school than female students. Moreover, males are more interested in vocationally engaging activities such as the repair of items than females. She also said, “Most females in this study did not want to become an engineer; however, they may have based their decision on
stereotypes of what engineers do” (p. 29). The academic subject seems to account for the level of interest or motivation and engagement for the gender of students. Certainly, anomalies exist in the academic world, but the generalization is that academics containing verbal and reading skills motivate females more frequently, while those subjects containing manipulatives and problem-solving attract males.

**Brain Differences**

While culture dictates many roles for males and females within American society as well as worldwide society, the research indicated that biological brain differences between the sexes do exist. According to Bonomo (2010), the research supported that the male brain is actually larger and heavier than the female brain by 10 to 15%. Also, differences in the autonomy of the brain between the sexes exist. Men possess on average more than 6 times the gray matter, and women possess 10 times the amount of white matter. Bonomo contends,

One part of males’ brains, the inferior parietal lobe, is generally larger. That lobe is involved in spatial and mathematical reasoning, skills that boys tend to perform better than girls. The left side of the brain, which is responsible for the ability to use language and connected to verbal and written ability, develops sooner in girls.

(p. 257)

In a workplace study, Gabriel and Schmitz (2007), acknowledged similar results comparing occupational distributions between the genders and studying related abilities. Bonomo (2010) also reported that significant differences in the size of males’ and females’ brains and differences in the sequences of development exist. The differences in the genders are much deeper than the obvious physiological differences. The rate of brain
development, size, and disbursement of matter create differences that directly reflect in the classroom in skill attainment, motivation, and engagement.

The brain differences cause thought process differences as well as learning rate and style differences. According to Sax (2006), girls do the following more efficiently than boys: multitask better because the corpus callosum is 26% larger than in boys; transition more quickly between tasks because the neural connectors that control listening skills are more developed in girls; act less impulsively due to higher serotonin levels; possess more integrated learning because of percent more blood flow; and maintain more verbal learning skills due to more cortical areas in the brain. In contrast, also reported by Sax, boys do the following more efficiently than girls: function better spatially and mechanically because of the larger area of the brain devoted to such functions; access more primitive areas of the brain more frequently; compartmentalize thinking due to less blood flow; and learn better using symbols and pictures and do better in physics and higher math than with verbal learning. Since the American School System is based primarily upon verbal learning skills, boys can be at a disadvantage from the beginning, especially boys who are trying to learn ESL.

**Instructional Environment**

The environment of the classroom is a critical factor in the rate and depth of learning. Numerous settings for classroom experiences are successful for all types of students including LEP students. According to Cornell (1995),

Special alternative instructional programs (SAIPs) were developed whose focus was to assist students in acquiring English language skills by using English as the vehicle of instruction. These programs include sheltered English, content-based
English, content-based intensive English, plus other forms of ESL instruction, and encompass a wide spectrum of classroom methodologies and techniques. (pp. 1-2)

Among these special alternative instructional programs exist different types of environments for the instruction to occur. Two such settings for LEP students are small group pull-out classes and sheltered English inclusion classes. The main goal of each of these environments is to teach the verbal skills students need to succeed in school. In his research, Hirsch (2010) says that verbal competency is the priority of education in any nation, and that verbal scores are indices of future success in society. High levels of verbosity help to close the income gap between racial and ethnic groups in the United States. Given the importance of verbal adequacies in education and later in life, the question arises for the classroom teacher of how best to increase these verbal competencies with students whose first language is not English. The educator must also consider the environment of the classroom and its impact on student motivation and achievement.

Small Group Pull-Out

One type of educational environment used to instruct LEP students is known as small group pull-out. In this atmosphere, the students are singled out from the mainstream group of students by some testing instrument, placed into a classroom only with other LEP students who are of the same language acquisition level, and taught English skills. Cited by Holfester (2015), “Students are removed from the classroom for one to two periods for specific ESL instruction in small groups. For the rest of the day, the ESL learners are mainstreamed with native L2 speakers in a traditional classroom setting” (p. 5). The impact, both positive and negative, of small group pull-out
instructional environments was supported by research (Holfester, 2015). Holfester (2015) stated, “Among the unresolved issues in the ESL community are inclusion, mainstreaming, and separation” (p. 1). Resolving the issues of small group pull-out classrooms versus inclusion classrooms requires numerous sources of data and years of research.

The positive impact of the small group pull-out classroom instructional atmosphere includes factors such as the feeling of confidence in the students, the time to adapt to the new environment, and the usage of native languages while teaching English. In her research, Bozburun (2011) reported that students in the small group pull-out classroom interacted with each other in English more than in the general classrooms. She also said that small groups were very useful for students who were timid and aided them in feeling more comfortable and less worried about mistakes. Bozburun also reported that the teacher could use the language of the student when explaining vocabulary he or she did not understand, and the small size of the class allowed for more one-on-one instruction. According to Holfester (2015), “Separation through ESL pull-out allows the ESL learner to assimilate and adapt while still being treated as a unique population with special needs” (p. 5). The students were allowed the opportunity to progress at their own pace in the small group pull-out classroom and were not pressured by the norms of the general education classroom to move forward with peers.

Within the small group pull-out environment, students utilize more of their native language to learn English. The concepts can be translated into English and vice versa to instill the meanings of the words. Goldenberg (2013) reported that the native language can be used in these classrooms to support English language acquisition by using
cognates, brief explanations in the home language, lesson preview or review in the native language, and strategies taught in the home language. All of these can be used to help the student acquire the new language more quickly. Bozburun (2011) denoted that scaffolding still takes place in the small group pull-out classroom with no simplification of the curriculum-based assessments. She also revealed that students were observed to flourish in the small group pull-out classroom and reverted to earlier mistakes when placed into a rigid general classroom with very controlled writing processes in place. The positive aspects of the small group pull-out classroom environment focuses on the confidence level of the student, the ability to differentiate the instruction, and the usage of native language terminologies to reiterate the English language acquisition.

The opposing research to the small group pull-out classroom instructional environment is varied. According to Cornell (1995):

The most prevalent ESL format is the pull-out program, in which students are pulled from mainstream classes for brief sessions of English instruction in special ESL center…The amount of language learning that can be achieved in 30 to 45 minutes is limited for even the most adept ESL specialist (p. 2).

Programs in which students leave the classroom and report to the ESL classroom for brief periods of time with 10 to 20 other students at various levels of language acquisition create concern for many educational specialists. Cornell expressed concern that many ESL classrooms are used to help with mainstream homework, the number of classrooms for ESL is very limited, and segregation of the students from the mainstream could constitute a legal breach. Bozburun (2011) presented that there “…still existed a feeling of isolation that was prevalent in ESL student. Separation from native speakers in language
arts classes fostered the feeling of intellectual inferiority” (p. 26). Another issue that LEP students battle when attending small group pull-out classes is the feeling of being separate, inferior, needy, and isolated from the other students. Clearly, the opposition to the small group pull-out classroom instructional environment has some validity especially when the programs are not implemented with fidelity.

**Sheltered English Inclusion Classrooms**

Another instructional environment for the LEP student is a combination of sheltered instruction and inclusion classrooms. Acknowledged by Holfester (2015), sheltered English classes assisted in the transition of students from the ESL to the mainstreamed curriculum with common content but altered or modified instructional delivery types. These classes also helped the student with the traditional mainstreamed classes by providing linguistically-enhanced study materials. Holfester explained that if mainstreamed ESL students who attend traditional classes in the traditional setting receive special learning assistance from some source (ESL specialist, computer-based instruction, or extended time), they are said to be in an inclusion instructional environment. These classrooms contain either a co-teaching model where two adults deliver the content in a variety of ways or a highly differentiated situation in which each student is taught at his or her own linguistic level using the regular education curricula as the mainstream of all students.

LEP students spend most of their school days in the mainstreamed general education classroom. According to Cornell (1995), the success or failure of the LEP student was reliant upon the instruction primarily received in the mainstreamed classroom. Whether this is an intentional reality or happens by default, primary
mainstream instruction is the reality; therefore, the mainstreamed classroom is the predictor of success or failure. Holfester (2015) reported, “Proponents of mainstreaming believe that English is learned by focusing on content and proper form” (p. 6). These literacy components can be taught within the general education classroom. Goldenberg (2013) stated that sheltered instruction can contribute to the ELL’s language acquisition and development; however, academic content and skills with supports such as building on the students’ experiences, providing background knowledge, using graphic organizers, making tasks clear, providing tactile learning experiences, using visual aids, repetition, and additional time are the center of the instructional model. The positive attributes of the sheltered English inclusion classrooms included aspects such as feelings of belonging for the student, differentiated learning experiences alongside peers, and atmosphere more aligned with the real world.

Meanwhile, the opposition against mainstreaming the LEP population into the inclusion classrooms stems from the traditional classroom teacher perspective and the LEP or ESL educator perspective. Asserted by Goldenberg (2013):

Virtually no data suggest that sheltered instruction…help EL’s keep up with non-EL’s or help close the achievement gap between them…Even the most popular sheltered model and one that brings together many disparate elements – the Sheltered Instruction Observation Protocol (SIOP) – has yet to demonstrate more than a very modest effect on student learning. (pp. 40-41)

Goldenberg also stated that lower levels of language acquisition can blunt the effects of good teaching practices in the traditional classroom. Holfester (2015) reiterated this point by saying that many educators shared concerns over the poor academic performance of
ESL students in inclusion and mainstreamed classrooms since they have problems with note taking, reading comprehension, and writing. Educators question whether these students get adequate instruction and assessment, and they are concerned about the self-esteem issues that arise from poor academic performance. The negative attitude toward mainstreamed classrooms for LEP students is not a pervasive one; however, many educational experts still vacillate between the best ways to narrow the achievement gap.

The traditional classroom teacher must also create a different atmosphere within the classroom in which the LEP student feels valued and the strategies necessary to attain better language skills is present. In her study, Bozburun (2011) argued that inconsistency in the spoken language in the classroom, along with the lack of proper training for the traditional mainstream teacher, results in poor instruction for the LEP student. She also noted that there are cases in which some mainstream classroom teachers teach directly to the native English speakers and seldom address the linguistic needs of the LEP students despite the large population of LEP students in the classroom. Bozburun also asserted that these students are often placed in lower-level academic classes, and the LEP students usually sat in silence with little or no interaction. The opponents to inclusion or mainstreamed classrooms have numerous concerns for the LEP students including the lack of tactical teaching within these classrooms that incorporate structures such as differentiation and utilization of cognates in the students’ native languages.

**Instructional Type**

Instruction for LEP students can be provided in a variety of pedagogies. Teachers and students can utilize computer-based instruction, in which computerized programs are used to actually teach, drill, and re-teach language skills, or other more traditional types
of instruction focusing primarily on teacher-led classes. In a study by Kulik and Kulik (1991), the research indicated that computer-based instruction was traced to its inception and followed throughout the late twentieth century. The researchers found that computer-based instruction programs have been used with increasing frequency and quantity in classroom settings to replace more traditional instructional techniques. The type of delivery can have an impact on the level of student engagement and motivation in the classroom.

**Computer-based Instruction**

The utilization of computer-based instruction can either enhance the current teaching practices or take the place of these. Kulik and Kulik (1991) defined computer-based instruction as the utilization of computer software used to “drill, tutor, and test” students in a curricular area (p. 75). Denoted by Kulik and Kulik, the positive aspects of computer-based instruction include reducing educational costs and enhancing the educational experiences and outcomes for students. The study predicted that computers and computer-based instruction would one day take the role of personal tutors for students. Computer-based instructional techniques, curricula, and delivery systems have greatly improved since this study to a point in which the prediction is more a reality. Technology in the form of computer-based instruction is used in helping LEP students develop language skills including reading fluency and comprehension. Ybarra and Green (2003) reported that computers provide instruction rich in vocabulary, context clues, and visual cues. Students can increase language attainment by becoming active learners in a one-to-one environment. Various learning strategies and styles can be accommodated by using computer-based instruction. Students realized some success when reading texts.
based primarily upon content using technology and computer programs. These programs provide immediate feedback for the struggling English language readers as well. The LEP student, as well as the general education student, can see growth and accomplishment when using computer-based instruction, possibly affecting his or her motivation and achievement.

One particularly popular computer-based instruction program for reading and language acquisition is the READ 180 program produced by Scholastic. Daggett and Hasselbring (2007, 2014) reported that the Scholastic program READ 180, developed by Hasselbring, is “a comprehensive reading intervention program that directly addresses individual needs through adaptive and instructional software, high-interest leveled literature, and direct instruction in reading and writing skills” (p. 8). Six crucial elements of the READ 180 program exist: a scientific research base, proven results, comprehensive instruction, purposeful assessment, data-driven instruction, and professional development. READ 180 incorporates computer-based instruction along with classroom strategies that are teacher driven to help the struggling adolescent reader, as well as the ELL, develop more mastery of reading comprehension (Daggett & Hasselbring, 2007, 2014). Numerous computer-based instruction programs are on the market, as educators are solicited daily via email, salespeople, regular mail, and phone calls. Scholastic READ 180 is not the only program that helps to increase student achievement in reading, but this program is one that has proven results with numerous years of research. READ 180 is a hybrid model that incorporates computer-based instruction with teacher-led instruction to help students’ achievement levels (Daggett & Hasselbring, 2007, 2014). Some programs are used as stand-alone interventions that completely take the place of the teacher-led
instruction for supplemental ESL instruction. When implemented with fidelity, these programs can provide needed interventions and enrichment education for students, particularly LEP students. Students can use the computer-based instructional model, work at their own pace, and achieve levels of success without the pressure of teachers or peers.

**Traditional Forms of Instruction**

Education in the United States has traditionally centered around teacher-led classrooms in which the information is delivered lecture style by the teacher while students listen and take notes. According to Schmoker (2011), other forms of delivery of instruction that are viewed as traditional include cooperative learning pairs, group activities, modeling, demonstrating, guided practice, and formative assessment. Other forms of effective educational practices mentioned include using hand signals and dry erase boards which are successful when implemented with fidelity. Schmoker says “Simple, old components of effective teaching should be our highest priority--at least they are satisfactorily implemented by the majority of teachers” (p. 61). The learner, whether English proficient or LEP, reaps the benefits of properly implemented teaching methods. As reported by Smart (2014), students who are neophytes in technology-based language acquisition learning and working in small group atmospheres in which the learner is self-driven, tend to face challenges with direct interaction in this atmosphere. These learners can realize actual inhibitions in learning rather than higher achievement levels. According to this research, more traditional teacher-led styles of instruction can be beneficial for the LEP student because these students have not been exposed to more innovative styles of teaching strategies.
Students in typical teacher-led classrooms with access to traditional strategies can see certain levels of success. However, acknowledged by Echevarria et al. (2015), “Access alone is not sufficient. Yet the support English Language Learners receive too often begins and ends with access strategies. Effective schools and districts must also focus on climate, expectations, and language instruction” (p. 23). These researchers explain that comprehensible core curriculum is necessary to help LEP students achieve, and accommodations such as differentiation, language supports, and visual representations are important in the classroom. According to Silva, Delleman, and Phasia (2013), “Creating and implementing tasks that support our English Language Learner’s ability to recognize features of complex argumentative texts in English and to tackle them has been rewarding and encouraging” (p. 56). These traditional methods of instruction support the success of the LEP student if implemented with fidelity and continued with pursuance. Success, in turn, equates to higher levels of motivation and engagement in the classroom.

Conclusion

The unique needs of the LEP student are important to consider when determining the accommodations, curricula, and instructional environments in the educational setting. According to the law, the needs of these students must be met in the public school setting, and these students must show adequate yearly progress in their learning objectives. Numerous strategies, environments, and instructional types are available for schools and districts to implement to aid in the goal of closing the achievement gap between the LEP students and the non-LEP students. Among these strategies, environments, and instructional types are computer-based instruction, traditional instructional practices,
small group pull-out classrooms, sheltered English classrooms, and inclusion classrooms. The existing research reveals mixed reviews of the strategies, environments, and instructional types and their impact on the level of student motivation and engagement. The research is also mixed concerning LEP status and gender upon student motivation and engagement.
CHAPTER III

METHODOLOGY

The review of the literature presented evidence that LEP students have unique needs that transcend the walls of the traditional classroom. The LEP female student differs from the LEP male student in learning styles, cultural proclivities, and instructional needs. According to the research by Holfester (2015), LEP students in small group pull-out classrooms and delivery based solely on hybrid computer-based instruction have lower self-esteem and fewer language acquisition skills when communicating with the general education population. Furthermore, Holfester reports that LEP students who are singled out and placed into a small group of similar students as well as the students who receive instruction based primarily upon hybrid computer-based strategies rather than teacher-led strategies had a lower level of positive student engagement and motivation. Much of this result is due to small group pull-out environments and hybrid computer-based classrooms that are lacking in resources, function, and focus as well as student interaction with peers and instructors.

The researcher developed four hypotheses to guide the present study:

1. No significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district.
2. No significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest Arkansas school district.

3. No significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district.

4. No significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student motivation as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district.

This chapter is organized into six sections: research design, sample, instrumentation, data collection procedures, statistical analysis methods, and limitations. This chapter will explain the research design and the selection techniques of the sample population. Furthermore, the chapter will discuss how the scores for the MES were obtained as well as the statistical data analysis procedures and any limitations of the study.

Research Design

A quantitative, non-experimental, causal-comparative design was used in this study. The participants included fourth-, fifth-, sixth-, seventh-, and eighth-grade students in one Southwest Arkansas school district. Because LEP status, gender, and instructional
types were determined prior to the beginning of this study, no manipulation of the independent variables was possible. A 2 x 2 factorial between-groups design strategy was used for all four hypotheses to analyze if interaction or main effects existed between the variables. The two independent variables for the Hypotheses 1 and 2 were gender and LEP status (students designated as LEP versus students not designated as LEP). The dependent variable for the first hypothesis was positive student engagement, and the dependent variable for the second hypothesis was positive student motivation. The two independent variables for Hypotheses 3 and 4 were gender and instructional type (traditional instruction and small group pull-out with hybrid computer-based instruction). The dependent variable for the third hypothesis was positive student engagement, and the dependent variable for the fourth hypothesis was positive student motivation.

**Sample**

The researcher used scaled scores from fourth, fifth, sixth, seventh, and eighth graders during the 2016-2017 school year from one school district in Southwest Arkansas. The sample was chosen from the entire population of these five grade levels and was stratified into male and female students, LEP and non-LEP students, and LEP students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction. Table 1 illustrates the various demographic aspects of the population.
Table 1

Demographics of Students in the Population

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>459</td>
<td>51.69%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>429</td>
<td>48.31%</td>
</tr>
<tr>
<td>LEP Status</td>
<td>LEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>239</td>
<td>26.91%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>198</td>
<td>22.30%</td>
</tr>
<tr>
<td></td>
<td>Non-LEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>220</td>
<td>24.77%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>231</td>
<td>26.02%</td>
</tr>
<tr>
<td>Instructional Type</td>
<td>LEP Traditional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>208</td>
<td>46.85%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>163</td>
<td>36.71%</td>
</tr>
<tr>
<td></td>
<td>LEP Hybrid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer-based</td>
<td>M</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>33</td>
</tr>
</tbody>
</table>

Each school principal, counselor, and the district superintendent gave permission and approval for the collection of the data. All students were identified according to gender, LEP status, and instructional type. The scores were entered into a spreadsheet according to pre-assigned student numbers, and the sample was selected using the Research Randomizer (Urbaniak & Plous, 2015). Table 2 illustrates the various demographic aspects of the sample.
Table 2

Demographics of Students in the Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>105</td>
<td>50.48%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>103</td>
<td>49.52%</td>
</tr>
<tr>
<td>LEP Status</td>
<td>LEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>54</td>
<td>25.96%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>50</td>
<td>24.04%</td>
</tr>
<tr>
<td></td>
<td>Non-LEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>51</td>
<td>24.52%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>53</td>
<td>25.48%</td>
</tr>
<tr>
<td>Instructional Type</td>
<td>LEP Traditional Inclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>54</td>
<td>30.50%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>50</td>
<td>28.24%</td>
</tr>
<tr>
<td></td>
<td>LEP Hybrid Computer-based</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>40</td>
<td>22.60%</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>33</td>
<td>18.63%</td>
</tr>
</tbody>
</table>

The samples were chosen as a representation of their population to better parallel the group sizes of the small group pull-out population and the hybrid computer-based instruction population.
Instrumentation

Motivation and Engagement Scale

The MES is a self-reported paper and pencil survey administered to the participants in the spring of 2017. This survey was used to measure the dependent variables, positive student engagement and positive student motivation. The reliability of the MES was reported as a Cronbach’s Alpha of .70-.87 with a test-retest correlation of .61-.81 (Fredricks et al., 2011). The subcategories calculated for positive student engagement were persistence, task management, and planning. The survey results from these three subcategories were used in combination to determine a value for positive student engagement and used for Hypotheses 1 and 3. The subcategories calculated for positive student motivation were self-belief, learning focus, and valuing. The survey results from these three subcategories were used in combination to determine a value for positive student motivation and used for Hypotheses 2 and 4.

The students spent approximately 20 to 30 minutes completing the surveys. This testing instrument was created by Martin (2015) of the Lifelong Achievement Group in Australia. The MES consisted of 42 questions on a 7-point Likert-type scale. Among these 42 questions, 12 of the items were related specifically to positive student engagement. Each item was assigned a value within the range of the Likert scale of 1 through 7 by the students participating in the survey. The score was calculated by figuring the sum of the 12 related items and multiplying that sum by 3.575 to create a score on a scale ranging from 43-100 to result in an overall score for positive student engagement. Among these 42 questions, 12 of the items were specifically related to positive student motivation. Each item was assigned a value within the range of the...
Likert scale of 1 through 7 by the students participating in the survey. The score was calculated by figuring the sum of the 12 related items and multiplying that sum by 3.575 to create a score on a scale ranging from 43-100 to result in an overall score for positive student motivation.

Data Collection Procedures

After Institutional Review Board approval, the researcher obtained the existing data from each of the three schools within the school district in this study. These data included gender, LEP status, and instructional type. During the spring semester of 2017, the MES survey was administered to the fourth-, fifth-, sixth-, seventh-, and eighth-grade students on the three different campuses in one school district in Southwest Arkansas. The survey was administered in the general education classrooms with all students who were present participating. This was a paper and pencil survey in which the students responded to each of the items on the Likert scale with answers ranging from 1 to 7. A 5-digit number was assigned to each of the students to identify them and link the survey results to the demographic data. The results of the surveys administered were physically collected from each of the three schools within the study.

The pertinent demographic data was collected through a district-level administrator using a district-level database. Also, the principals and counselors of each school provided aid in the administration of the surveys and acquisition of the demographic data. Researcher-assigned identification numbers were used to link survey results to demographic data to ensure confidentiality. The surveys were reviewed for proper identification numbers and completeness. Incomplete surveys and those without proper identification numbers were excluded from the study. Survey results were divided
into separate stacks according to demographic data (i.e. gender, LEP status, and instructional type). Then, the survey results were typed into an Excel spreadsheet. The paper copies of the surveys along with the demographic data were shredded, and student confidentiality was maintained.

**Analytical Methods**

Data from this study were statistically analyzed using SPSS Version 24. The data were examined before statistical analysis for gender, LEP status, and instructional type to ensure that the sample collected represented the student population in an appropriate manner. Further analysis was used to check for outliers and the homogeneity of variances using the Levene’s statistic. To test the four hypotheses, the researcher used a two-tailed test with a .05 level of significance. A Bonferroni correction was used to adjust the probability value because of the increased risk of type I errors that are likely when performing multiple statistical tests (Morgan et al., 2012); therefore, the adjusted significance level was .0125 (.05/4). All four hypotheses were analyzed with a 2 x 2 factorial between-groups ANOVA. The independent variables for Hypothesis 1 were gender and LEP status, and the dependent variable was positive student engagement as measured by the MES. The independent variables for Hypothesis 2 were gender and LEP status, and the dependent variable was positive student motivation as measured by the MES. The independent variables for Hypothesis 3 were gender and instructional type, and the dependent variable was positive student engagement as measured by the MES. The independent variables for Hypothesis 4 were gender and instructional type, and the dependent variable was positive student motivation as measured by the MES.
Limitations

Limitations are noted in most research studies to assist the reader in interpreting the results of the studies. The following were limitations identified with this study. Although no study is without limitations, some studies contain limitations that are unique to the location of the sample population. Other studies contain limitations due to the demographics of the sample population.

First, it is not possible to determine how often the students in the traditional instructional types grouping actually did receive some level of computer-based instruction within a general education classroom as a part of the regular school day. The same is true with the groupings that received their ESL instruction through computer-based instruction. The researcher also could not determine the fidelity with which the computer-based instruction or other types of instruction were administered.

Second, the small accessible population from which to choose a sample limited the study’s generalizability. The scores for the students represented only one school district in Southwest Arkansas. Five grade levels in three different schools in the same school district had to be used, and the population lacked racial diversity in the LEP population. All the students designated as LEP were of Hispanic descent.

Third, the positive student engagement and motivation scores were self-reported by the research participants. The researcher cannot, with certainty, state that all participants completed the survey with fidelity, completely reading and comprehending each item.

Fourth, the surveys were conducted in English. This fact could have caused some students difficulty in understanding and interpreting certain items on the survey.
Fifth, several students failed to place their ID numbers on the survey. This caused the researcher to exclude those surveys from the study. Although limitations exist in each study, this study provides the reader with information that should allow for an informed decision regarding the effects of gender, LEP status, and instructional type on positive student engagement and positive student motivation for the population surveyed.
CHAPTER IV

RESULTS

A quantitative, non-experimental, causal-comparative design was used in this study. The participants included fourth-, fifth-, sixth-, seventh-, and eighth-grade students in one Southwest Arkansas school district. A 2 x 2 factorial between-groups design strategy was used for all four hypotheses to analyze if interaction or main effects existed between the variables. The two independent variables for the Hypotheses 1 and 2 were gender and LEP status (students designated as LEP versus students not designated as LEP). The dependent variable for the first hypothesis was positive student engagement, and the dependent variable for the second hypothesis was positive student motivation. The two independent variables for Hypotheses 3 and 4 were gender and instructional type (traditional instruction and small group pull-out with hybrid computer-based instruction). The dependent variable for the third hypothesis was positive student engagement, and the dependent variable for the fourth hypothesis was positive student motivation.

Analytical Methods

The four hypotheses were analyzed using IBM Statistical Packages for the Social Sciences Version 24 (Morgan et al., 2012). Data for the hypotheses were collected and coded for gender, LEP status, and instructional type. All four hypotheses were analyzed using four 2 x 2 factorial between-groups ANOVAs. Two-tailed tests with a .05 significance level were used to test the null hypotheses. The researcher assessed
assumptions of normality and homogeneity of variances prior to statistical analysis of all the hypotheses. Data were examined in order to determine if assumptions were met.

Demographics

Student demographics and surveys were obtained from three schools in a district in Southwest Arkansas. The accessible population of the schools included a middle school age demographic. The stratification of the sample mirrored the proportion of the population participating in small group pull-out classes with hybrid computer-based instruction.

Hypothesis 1

Hypothesis 1 stated that no significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district. Regarding the sample, skewness was less than 1, and kurtosis was less than 1. Table 3 displays the group means and standard deviations.
Screening for extreme outliers was conducted. Boxplots indicated these outliers in a graphic fashion. Three cases were reported as outliers, but these were not significantly extreme enough to be removed. The Kolmogorov-Smirnov test was used to test for normality with \( p < .05 \) for each group, indicating that the data were not normally distributed across all groups, namely the non-LEP population. However, factorial ANOVA, being a robust statistical analysis, can tolerate this violation (Morgan et al., 2012). Levene’s test of equality of variances was conducted within ANOVA and indicated that homogeneity of variances existed across groups, \( F(3, 204) = 0.68, p > .05 \), indicating that the assumption was met. A line plot indicated an interaction between gender and LEP status. A 2 x 2 factorial ANOVA was used to test the hypothesis to

### Table 3

**Descriptive Statistics for Gender by LEP Status on Positive Student Engagement**

<table>
<thead>
<tr>
<th>Gender</th>
<th>LEP Status</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Non-LEP</td>
<td>71.18</td>
<td>15.13</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>69.29</td>
<td>15.72</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>70.21</td>
<td>15.39</td>
<td>105</td>
</tr>
<tr>
<td>F</td>
<td>Non-LEP</td>
<td>77.96</td>
<td>13.04</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>78.40</td>
<td>13.11</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>78.17</td>
<td>13.01</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>Non-LEP</td>
<td>74.63</td>
<td>14.44</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>73.67</td>
<td>15.16</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>74.15</td>
<td>14.78</td>
<td>208</td>
</tr>
</tbody>
</table>
evaluate the effects of gender by LEP status on positive student engagement. The results of the ANOVA are displayed in Table 4.

Table 4

Factorial ANOVA Results for Positive Student Engagement as a Function of Gender and LEP Status

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>3279.11</td>
<td>1</td>
<td>3279.11</td>
<td>16.00</td>
<td>.000</td>
<td>0.00</td>
</tr>
<tr>
<td>LEP status</td>
<td>27.02</td>
<td>1</td>
<td>27.02</td>
<td>0.13</td>
<td>.717</td>
<td>0.010</td>
</tr>
<tr>
<td>Gender*LEP status</td>
<td>70.53</td>
<td>1</td>
<td>70.53</td>
<td>0.34</td>
<td>.558</td>
<td>0.020</td>
</tr>
<tr>
<td>Error</td>
<td>41808.32</td>
<td>204</td>
<td>204.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1188855.56</td>
<td>208</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The interaction of the variables was not significant, $F(1, 208) = 0.34, p = .558, ES = 0.020$. Gender and LEP status did not combine to significantly affect positive student engagement. Therefore, the null hypothesis for the interaction effect could not be rejected. Because no significant interaction was found between gender and LEP status, the main effect of each variable was examined independently. The main effect for gender on positive student engagement was significant, $F(1, 208) = 16.00, p = .000, ES = 0.000$. However, the main effect for LEP status was not significant, $F(1, 208) = 0.13, p = .717, ES = 0.010$. Figure 1 shows the means for positive student engagement as a function of gender and LEP status.
When analyzing the main effect for gender on positive student engagement, the mean of the female group ($M = 78.17, SD = 13.01$) was significantly higher compared to the male group’s mean ($M = 70.21, SD = 15.39$). According to Cohen (1988), this was a small effect size. However, when analyzing the main effect for LEP status on positive student engagement, even though the mean of the non-LEP group ($M = 74.63, SD = 14.44$) was slightly higher, it was not significantly different compared to the LEP group’s mean ($M = 73.67, SD = 15.16$). Therefore, the hypothesis for the main effect for gender was rejected, and the hypothesis for the main effect of LEP status was retained.

**Hypothesis 2**

Hypothesis 2 stated that no significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest
Arkansas school district. Regarding the sample, skewness was less than 1, and kurtosis was greater than 1. Table 5 displays the group means and standard deviations.

Table 5

Descriptive Statistics for Gender by LEP status on Positive Student Motivation

<table>
<thead>
<tr>
<th>Gender</th>
<th>LEP status</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Non-LEP</td>
<td>84.05</td>
<td>13.19</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>83.40</td>
<td>12.69</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.71</td>
<td>12.88</td>
<td>105</td>
</tr>
<tr>
<td>F</td>
<td>Non-LEP</td>
<td>86.60</td>
<td>8.93</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>88.80</td>
<td>9.17</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>87.67</td>
<td>9.07</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>Non-LEP</td>
<td>85.35</td>
<td>11.24</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>LEP</td>
<td>85.99</td>
<td>11.40</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>85.67</td>
<td>11.30</td>
<td>208</td>
</tr>
</tbody>
</table>

Screening for extreme outliers was conducted. Boxplots indicated these outliers in a graphic fashion. Six cases were reported as outliers, but these were not significantly extreme enough to be removed. The Kolmogorov-Smirnov test was used to test for normality with $p < .05$ for each group, indicating that the data were normally distributed across all groups. Levene’s test of equality of variances was conducted within ANOVA and indicated that homogeneity of variances existed across groups, $F(3, 204) = 0.68, p > .05$, indicating that the assumption was met. The robust nature of ANOVA still allows the
use of this test for statistical analysis regardless of these assumptions (Morgan et al., 2012). A line plot indicated an interaction between gender and LEP status. A 2 x 2 factorial ANOVA was used to test the hypothesis to evaluate the effects of gender by LEP status on positive student motivation. The results of the ANOVA are displayed in Table 6.

Table 6

*Factorial ANOVA Results for Positive Student Motivation as a Function of Gender and LEP Status*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>822.20</td>
<td>1</td>
<td>822.20</td>
<td>6.58</td>
<td>.011</td>
<td>0.031</td>
</tr>
<tr>
<td>LEP status</td>
<td>30.76</td>
<td>1</td>
<td>30.76</td>
<td>0.25</td>
<td>.620</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender*LEP status</td>
<td>105.75</td>
<td>1</td>
<td>105.75</td>
<td>0.85</td>
<td>.359</td>
<td>0.004</td>
</tr>
<tr>
<td>Error</td>
<td>25495.67</td>
<td>204</td>
<td>124.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1553138.89</td>
<td>208</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The interaction of the variables was not significant, $F(1, 208) = 0.85, p = .359, ES = 0.004$. Gender and LEP status did not combine to significantly affect positive student motivation. Therefore, the null hypothesis for the interaction effect could not be rejected. Because no significant interaction was found between gender and LEP status, the main effect of each variable was examined independently. The main effect for gender on positive student motivation was significant, $F(1, 208) = 6.58, p = .011, ES = 0.031$.
However, the main effect for LEP status was not significant, \( F(1, 208) = 0.25, p = .620, ES = 0.001 \). Figure 2 shows the means for positive student motivation as a function of gender and LEP status.

![Positive Student Motivation Means](image)

*Figure 2. Positive Student Motivation means by gender and LEP status.*

When analyzing the main effect for gender on positive student motivation, the mean of the female group \((M = 87.67, SD = 9.07)\) was significantly higher compared to the male group’s mean \((M = 83.71, SD = 12.88)\). According to Cohen (1988), this was a small effect size. However, when analyzing the main effect for LEP status on positive student motivation, even though the mean of the LEP group \((M = 85.99, SD = 11.40)\) was slightly higher, it was not significantly different compared to the non-LEP group’s mean \((M = 85.35, SD = 11.24)\). Therefore, the hypothesis for the main effect for gender was rejected, and the hypothesis for the main effect of LEP status was retained.
Hypothesis 3

Hypothesis 3 stated that no significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. Regarding the sample, the skewness was less than 1, and kurtosis was a little greater than 1. Table 7 displays the group means and standard deviations.

Table 7

*Descriptive Statistics for Gender by Instructional Type on Positive Student Engagement*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Instructional Type</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Inclusion/Traditional</td>
<td>71.20</td>
<td>15.30</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>75.54</td>
<td>12.61</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>73.05</td>
<td>14.31</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>Inclusion/Traditional</td>
<td>76.17</td>
<td>13.30</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>77.32</td>
<td>12.97</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>76.63</td>
<td>13.11</td>
<td>83</td>
</tr>
<tr>
<td>Total</td>
<td>Inclusion/Traditional</td>
<td>73.59</td>
<td>14.52</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>76.35</td>
<td>12.72</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>74.73</td>
<td>13.84</td>
<td>177</td>
</tr>
</tbody>
</table>

*Note. CBI = Computer-based Instruction*
Screening for extreme outliers was conducted. Boxplots indicated four cases as outliers, but these were not significantly extreme enough to be removed. The Kolmogorov-Smirnov test was used to test for normality with \( p < .05 \) for each group, indicating that the data were not normally distributed across all groups; however, ANOVA is a robust enough statistical analysis to overcome this assumption (Morgan et al., 2012). Levene’s test of equality of variances was conducted within ANOVA and indicated that homogeneity of variances existed across groups, \( F(3, 173) = 0.56, p > .05 \), indicating that the assumption was met. The robust nature of ANOVA still allows the use of this test for statistical analysis regardless of these assumptions (Morgan et al., 2012). A line plot indicated an interaction between gender and educational setting. A 2 x 2 factorial ANOVA was used to test the hypothesis to evaluate the effects of gender by instructional type on positive student engagement. The results of the ANOVA are displayed in Table 8.

Table 8

*Factorial ANOVA Results for Positive Student Engagement as a Function of Gender and Instructional Type*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>484.84</td>
<td>1</td>
<td>484.84</td>
<td>2.57</td>
<td>.111</td>
<td>0.015</td>
</tr>
<tr>
<td>Instructional Type</td>
<td>321.78</td>
<td>1</td>
<td>321.78</td>
<td>1.70</td>
<td>.193</td>
<td>0.010</td>
</tr>
<tr>
<td>Gender*Instructional Type</td>
<td>107.88</td>
<td>1</td>
<td>107.88</td>
<td>0.57</td>
<td>.451</td>
<td>0.003</td>
</tr>
<tr>
<td>Error</td>
<td>32666.63</td>
<td>173</td>
<td>188.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1022077.78</td>
<td>177</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The interaction of the variables was not significant, $F(1, 177) = 0.57, p = .451, ES = 0.003$. Gender and instructional type did not combine to significantly affect positive student engagement. Therefore, the null hypothesis for the interaction effect could not be rejected. Because no significant interaction was found between gender and educational setting/type, the main effect of each variable was examined independently. The main effect for gender on positive student engagement was not significant, $F(1, 177) = 2.57, p = 0.111, ES = 0.015$. Moreover, the main effect for educational setting/type was not significant, $F(1, 177) = 1.70, p = .193, ES = 0.010$. Figure 3 shows the means for positive student engagement as a function of gender and instructional type.

![Figure 3. Positive Student Engagement means by gender and instructional type.](image-url)
When analyzing the main effect for gender on positive student engagement, even though the mean of the female group \((M = 76.63, SD = 13.11)\) was slightly higher, it was not significantly different compared to the male group’s mean \((M = 73.05, SD = 14.31)\). Similarly, when analyzing the main effect for instructional type on positive student engagement, even though the mean of the small group pull-out/computer-based group \((M = 76.35, SD = 12.72)\) was slightly higher, it was not significantly different compared to the inclusion/traditional group’s mean \((M = 73.59, SD = 14.52)\). Therefore, not enough evidence existed to reject the null hypotheses for the two main effects.

**Hypothesis 4**

Hypothesis 4 stated that no significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student motivation as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. Regarding the sample, the skewness was less than 1, and kurtosis was a little greater than 1. Table 9 displays the group means and standard deviations.
Table 9

*Descriptive Statistics for Gender by Instructional Type on Positive Student Engagement*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Instructional Type</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Inclusion/Traditional</td>
<td>83.33</td>
<td>12.99</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>83.88</td>
<td>13.81</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.56</td>
<td>13.28</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>Inclusion/Traditional</td>
<td>86.83</td>
<td>9.97</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>87.17</td>
<td>9.54</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>86.97</td>
<td>9.74</td>
<td>83</td>
</tr>
<tr>
<td>Total</td>
<td>Inclusion/Traditional</td>
<td>85.02</td>
<td>11.72</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Small Group Pull-out/CBI</td>
<td>85.37</td>
<td>12.10</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>85.16</td>
<td>11.84</td>
<td>177</td>
</tr>
</tbody>
</table>

*Note.* CBI = Computer-based Instruction

Screening for extreme outliers was conducted. Boxplots indicated four cases as outliers, but these were not significantly extreme enough to be removed. The Kolmogorov-Smirnov test was used to test for normality with $p < .05$ for each group, indicating that the data were normally distributed across all groups; however, ANOVA is a robust enough statistical analysis to overcome this assumption (Morgan et al., 2012). Levene’s test of equality of variances was conducted within ANOVA and indicated that homogeneity of variances existed across groups, $F(3, 173) = 2.11, p > .05$, indicating that the assumption was met. The robust nature of ANOVA still allows the use of this test for statistical analysis regardless of these assumptions (Morgan et al., 2012). A line plot indicated an interaction between gender and educational setting. A $2 \times 2$ factorial
ANOVA was used to test the hypothesis to evaluate the effects of gender by instructional type on positive student motivation. The results of the ANOVA are displayed in Table 10.

Table 10

*Factorial ANOVA Results for Positive Student Motivation as a Function of Gender and Instructional Type*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>492.38</td>
<td>1</td>
<td>492.38</td>
<td>3.53</td>
<td>.062</td>
<td>0.020</td>
</tr>
<tr>
<td>Instructional Type</td>
<td>8.26</td>
<td>1</td>
<td>8.26</td>
<td>0.06</td>
<td>.808</td>
<td>0.000</td>
</tr>
<tr>
<td>Gender*Instructional Type</td>
<td>0.44</td>
<td>1</td>
<td>139.70</td>
<td>0.00</td>
<td>.955</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>24167.34</td>
<td>173</td>
<td>177.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1308333.33</td>
<td>177</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The interaction of the variables was not significant, $F(1, 177) = 0.00$, $p = .955$, $ES = 0.000$. Gender and instructional type did not combine to significantly affect positive student motivation. Therefore, the null hypothesis for the interaction effect could not be rejected. Because no significant interaction was found between gender and instructional type, the main effect of each variable was examined independently. The main effect for gender on positive student motivation was not significant, $F(1, 177) = 3.53$, $p = .062$, $ES = 0.020$. Moreover, the main effect for instructional type was not significant, $F(1, 177) =
0.06, \( p = .808, ES = 0.000 \). Figure 4 shows the means for positive student motivation as a function of gender and instructional type.

![Positive Student Motivation Means](image)

*Figure 4. Positive Student Motivation means by gender and instructional type.*

When analyzing the main effect for gender on positive student motivation, even though the mean of the female group (\( M = 86.97, SD = 9.74 \)) was slightly higher, it was not significantly different compared to the male group’s mean (\( M = 83.56, SD = 13.28 \)). Similarly, when analyzing the main effect for educational setting/type on positive student motivation, even though the mean of the small group pull-out group/computer-based instruction (\( M = 85.37, SD = 12.10 \)) was slightly higher, it was not significantly different compared to the inclusion/traditional type group’s mean (\( M = 85.02, SD = 11.72 \)).
Therefore, not enough evidence existed to reject the null hypotheses for the two main
effects.

**Summary**

This study contained four hypotheses, all of which were 2 x 2 factorial between-
groups designs. The independent variables for Hypotheses 1 and 2 were gender and LEP
status. The independent variables for Hypotheses 3 and 4 were gender and instructional
type. The dependent variable for Hypotheses 1 and 3 was positive student engagement.
The dependent variable for Hypotheses 2 and 4 was positive student motivation A
summary of the first four hypotheses is presented in Table 11.

Table 11

*Summary of Statistically Significant Results for Hypotheses 1-4*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Significant Result</th>
<th>$p$</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gender for Positive Student Engagement</td>
<td>.000</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Gender for Positive Student Motivation</td>
<td>.011</td>
<td>0.031</td>
</tr>
<tr>
<td>3</td>
<td>None</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>4</td>
<td>None</td>
<td>-----</td>
<td>----</td>
</tr>
</tbody>
</table>

The interaction effects for all four hypotheses were not significant. Therefore, the
independent variables did not interact to significantly affect the dependent variables. The
LEP status main effect for Hypotheses 1 and 2 did not significantly affect positive student
engagement or positive student motivation, respectively. However, the main effect for
gender in Hypotheses 1 and 2 did significantly affect both positive student engagement or
positive student motivation, respectively. The female samples in both hypotheses, on average, scored significantly higher compared to the male groups in both engagement and motivation. Both of these significant results indicated small effect sizes (Cohen, 1988). The main effects for gender and instructional type in Hypotheses 3 and 4 were not significant.
CHAPTER V

DISCUSSION

Student engagement on all grade levels is a critical element for success in the educational setting. Many factors potentially influence engagement including motivation. Students’ desire to attend in the classroom, to do the tasks at hand, and to extend the learning by personalizing it are elements that seem to factor into active engagement. The gender differences between male and female students can have effects upon the levels of active student engagement and motivation. Some researchers have maintained that LEP status is another demographic that can affect engagement and motivation. In the school setting, educators are challenged each day with educational accountability and the issues that surround all students regardless of gender or language attainment levels.

The LEP population contains its challenges based upon culture and language barriers that can potentially affect the levels of positive student engagement and motivation. In an effort to increase student engagement and motivation, educators use a variety of instructional methods and curricula ranging from individual silent reading strategies to teacher-led instruction to computer-based instruction and hybrids of these (Holfester, 2015). The debate exists among the experts between which instructional type serves this population best in leading lead to higher levels of student engagement and motivation, thus better student achievement.
Students have received instruction in small group pull-out classes for ESL education for decades. Both settings for instruction, inclusion and small group pull-out, rely heavily upon the culture and climate of the classroom to generate the engagement and motivation necessary for greater academic attainment. Moreover, students have also received ESL instruction through traditional types of education and hybrid computer-based instruction. These different instructional delivery systems are reliant upon the classroom culture and climate as well as generating the positive engagement and motivation necessary for greater academic achievement.

The purposes of this study were four-fold. First, the purpose of this study was to determine the effects by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district. Second, the purpose of this study was to determine the effects by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest Arkansas school district. Third, the purpose of this study was to determine the effects by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. Fourth, the purpose of this study was to determine the effects by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student
motivation as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district.

The study used the MES, which is a self-reported paper and pencil survey, to measure the dependent variables: positive student engagement and positive student motivation. The survey was administered in the spring of 2017 to fourth, fifth, sixth, seventh, and eighth graders. The study used results from 385 students in three schools in one Southwest Arkansas school district. MES results were analyzed to find effects of gender, LEP status, and instructional type on positive student engagement and motivation.

In this chapter, conclusions, recommendations, and implications are presented. First, this chapter includes the conclusions that resulted from the data collection and analysis within this study. Second, this chapter offers implications based on the results of this study within the context of the literature review. Third, this chapter presents recommendations that can aid the school population within this study and other school populations when implementing specific instructional practices.

**Conclusions**

To address the four hypotheses, four factorial between-groups ANOVAs were run using LEP status, gender, instructional type (inclusion/traditional or small group pull-out/computer-based instruction). The hypotheses were tested, and the respective conclusions were formulated. The researcher used a .05 level of significance. Interactions and main effects were examined in all four hypotheses.
Hypothesis 1

Hypothesis 1 stated that no significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student engagement as measured by the MES for middle school students in one Southwest Arkansas school district. The interaction between gender and LEP status was not significant. Together, gender and LEP status did not combine to significantly affect positive student engagement on the MES. Based on these results, there was not enough evidence to reject the null hypothesis for the interaction effect. The main effect for LEP status on positive student engagement was also not significant, even though the mean of the non-LEP group was slightly higher compared to the LEP group. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of LEP status. However, when analyzing the main effect for gender on positive student engagement, the mean of the female group was significantly higher compared to the male group’s mean. Therefore, the main effect null hypothesis for gender was rejected. Furthermore, according to Cohen (1988), this was a small effect size.

Hypothesis 2

Hypothesis 2 stated that no significant difference will exist by gender between students designated as LEP versus students not designated as LEP on positive student motivation as measured by the MES for middle school students in one Southwest Arkansas school district. The interaction between gender and LEP status was not significant. Together, gender and LEP status did not combine to significantly affect positive student motivation on the MES. Based on these results, there was not enough evidence to reject the null hypothesis for the interaction effect. The main effect for LEP
status on positive student motivation was also not significant, even though the mean of the non-LEP group was slightly higher compared to the LEP group. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of LEP status.

However, when analyzing the main effect for gender on positive student motivation, the mean of the female group was significantly higher compared to the male group’s mean. Therefore, the main effect null hypothesis for gender was rejected. Furthermore, according to Cohen (1988), this was a small effect size.

**Hypothesis 3**

Hypothesis 3 stated that no significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student engagement as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. The interaction between gender and instructional type was not significant. Together, gender and instructional type did not combine to significantly affect positive student engagement on the MES. Based on these results, there was not enough evidence to reject the null hypothesis for the interaction effect. The main effect for instructional type on positive student engagement was also not significant, even though the mean of the small group pull-out/computer-based group was slightly higher compared to the inclusion/traditional group’s mean. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of instructional type. Likewise, when analyzing the main effect for gender on positive student engagement, even though the mean of the female group was slightly higher, it was not significantly different.
compared to the male group’s mean. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of gender.

**Hypothesis 4**

Hypothesis 4 stated that no significant difference will exist by gender between students taught in inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction on positive student motivation as measured by the MES for middle school students designated as LEP in one Southwest Arkansas school district. The interaction between gender and instructional type was not significant. Together, gender and instructional type did not combine to significantly affect positive student motivation on the MES. Based on these results, there was not enough evidence to reject the null hypothesis for the interaction effect. The main effect for instructional type on positive student motivation was also not significant, even though the mean of the small group pull-out/computer-based group was slightly higher compared to the inclusion/traditional group’s mean. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of instructional type. Likewise, when analyzing the main effect for gender on positive student motivation, even though the mean of the female group was slightly higher, it was not significantly different compared to the male group’s mean. Therefore, evidence was not sufficient to reject the null hypothesis for the main effect of gender.

**Implications**

Positive student engagement and motivation are necessary for academic achievement to improve. Student motivation to learn increases student engagement in the classroom. Over time, these two factors increase student achievement. According to
Saeed and Zyngier (2002), students with skills to learn are capable of learning, but students with wills to learn are motivated to active engagement in the classroom. The engagement piece leads to higher skill attainment and greater levels of achievement. Middle-grade students pose many challenges for educators when implementing innovations to increase student engagement and motivation. Within these age groups are subpopulations that add to these challenges. Among these subpopulations are students designated as LEP, either male or female. Among the LEP population, students are offered different types of instructional strategies in an attempt to increase their achievement by increasing their engagement and motivation.

**Hypotheses 1 & 2: Gender & LEP Status**

The main effect of gender was found to be statistically significant on positive student engagement in Hypothesis 1 and on motivation in Hypothesis 2. The main effect of LEP status was not found to be statistically significant on positive student engagement or motivation in Hypotheses 1 and 2. When analyzing the general population, on average, male students were less engaged and motivated when compared to female students. Some factors for consideration for this discrepancy are learning style and brain differences between genders. Gurian and Stevens (2004) reported that boys tend to need more physical learning space and can be less organized. Girls have better verbal skills and understand feelings and emotions better. Moreover, the brain of the male has a different physiological makeup compared to the female. Bonomo (2010) contends:

One part of male’s brains, the inferior parietal lobe, is generally larger. That lobe is involved in spatial and mathematical reasoning, skills that boys tend to perform better than girls. The left side of the brain, which is responsible for the ability to
use language and connected to verbal and written ability, develops sooner in girls.

(p. 257)

The MES is a measure of the value placed on various educational attainment skills that rely on verbal and written abilities of students. The male mean for positive student engagement in Hypothesis 1 and the male mean for positive student motivation in Hypothesis 2 were significantly lower than the female means, regardless of the LEP status. These results indicate that there is a disconnect between gender-specific needs of the students and the delivery in the classroom; schools structurally and fundamentally fail to recognize and attend to these gender-specific needs (Gurian & Stevens, 2004).

The mental focus of males seems different from that of females in the classroom. According to Bonomo (2006), boys tend to learn better in shorter, more actively involved lessons with less written tasks and more challenges to allow more physical outlets for their aggression. Bonomo continued that girls tend to learn better in groups facing each other in activities that allow them to help the instructor. The overall implication is that boys tend to learn in different styles, such as kinesthetic and experimental techniques with manipulatives, as opposed to girls who learn with verbal and organized techniques. An understanding of varying learning styles helps to explain the significance of the main effect of gender in Hypotheses 1 and 2. The statistically significant lower mean for male students on the MES is indicative of the style in which classrooms and schools are organized from the traditional structure that is primarily reliant upon verbal skills such as reading, writing, and researching. Males’ levels of engagement and motivation would naturally be lower when materials are continually introduced in the verbal formats that most schools present.
Within both hypotheses, no significant interaction between the two independent variables (gender and LEP status) occurred. Also, the main effect of LEP status resulted in no significant differences in mean averages. Research by Holfester (2015) indicates that the curriculum offered in the United States for ESL relies upon five fundamental areas: reading, writing, grammar, speaking/conversation, and listening. LEP students are immersed in these five fundamental areas of instruction from the onset of their educational experience in the United States. Most of their educational experience revolves around verbal skill attainment. Based on this emphasis on verbal skill attainment, LEP students seem to have an extra challenge regarding their academic achievement. LEP students are expected to learn verbal skills quickly, assimilate into the school mores, and conduct themselves accordingly. This process can be difficult, according to the Virginia Department of Education (2006), because LEP students often come from cultures that have different norms, causing them to quickly assimilate into society by mimicking the cultural norms of the majority society. LEP students often tend to acquiesce to the behaviors surrounding them and strive to please the adults who teach them. These phenomena, combined with the home culture that emphasizes compliance and the immersion in verbosity in school, result in a population of students who are just as engaged and motivated as the majority that surrounds them in the classrooms.

**Hypotheses 3 & 4: Gender & Instructional Type**

The population for Hypotheses 3 and 4 was limited to the LEP population of three schools in one Southwest Arkansas school district. The independent variables for Hypotheses 3 and 4 were gender and instructional type (inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-
based instruction). The dependent variable for Hypothesis 3 was positive student engagement as measured by the MES, and the dependent variable for Hypothesis 4 was positive student motivation as measured by the MES. Within both hypotheses, no significant interaction between the two independent variables (gender and instructional type) occurred. Also, the main effects for gender and instructional type were not significant within the LEP samples.

Although the main effect of gender in Hypotheses 1 and 2 resulted in statistically different means between males and females, which included LEP and non-LEP students, the results differed in Hypotheses 3 and 4 when strictly considering the gender of the LEP sample. The research provided by the No Child Left Behind legislation indicates that a greater accountability has been placed upon the public school system to provide solutions for reducing and eradicating the achievement gap between LEP and non-LEP students (U.S. Department of Education, 2004). Great responsibility is placed upon the schools to find the best practices for educating the LEP student by providing the interventions necessary for this population to attain language proficiency in a timely manner. The Every Child Succeeds Act legislation upholds the protections for the disadvantaged students with high needs and requires that all students in America be taught to high standards that will coalesce in successful futures (U.S. Department of Education, 2015). These federal requirements place a greater focus and attention by school officials on daily achievement needs of the LEP students, along with the systematic interventions that are used with this population. Accountability for these requirements can account for the similar means on positive student engagement and motivation between males and females found in Hypotheses 3 and 4.
The family environment of the LEP student accounts for some of the similarities between the genders in engagement and motivation. In his research, Cornell (1995) asserts that these students come from families in which parental participation in the educational process is minimal at best. These parents are reluctant to attend school functions and are many times uneducated themselves. Many of these students come from poverty conditions in which the student works at night, or the home is not conducive for homework or other school related activities to occur. These cultural differences can attest to the lack of differentiation between the genders in the study. The means for LEP males in Hypothesis 1 and 2 were slightly lower than the means for Hypotheses 3 and 4. The means for LEP females in Hypothesis 1 and 2 were slightly higher than the means for Hypotheses 3 and 4. In this study, positive student engagement and motivation remained constant between the genders among the LEP sample, regardless of the different groupings. The difficulties faced by these students in the home are not isolated to one gender or the other, and many times, these students view school as the great equalizer to escape the poverty in which they exist, regardless of their preferential form of learning based on gender. The level of attention to the increased achievement of this population, regardless of the gender of the student, attributes to the similarity in the gender means.

The main effect of instructional type in Hypotheses 3 and 4 was found to have no statistical difference in the means for students who were taught in an inclusion classes with traditional instruction or students taught in small group pull-out classes with hybrid computer-based instruction. While considering the federal requirements placed upon the schools to provide solutions for reducing and eradicating the achievement gap, schools implement various instructional environments to aid in the language acquisition for LEP
students. According to Bozburun (2011), inclusion or mainstream classes provide students with rich linguistic interactions through written mode. Bozburun asserted that success for LEP students, regardless of the instructional approach, depends on the vision of success of all students, a well-developed and designed program that includes language skill and content knowledge, and an organized school structure.

Small group pull-out is another instructional type in which LEP students receive language acquisition skills. In this environment, students are placed in a self-contained classroom for a specified period of time during the school day to study ESL. Attested by Myroup (2011), this approach provides the student with English immersion that removes the student from the regular classroom and places him or her into a specialized classroom to teach reading, writing, and other subjects as needed. Students’ time is divided between these pull-out classes and general education classes. Both approaches to ESL instruction are reliant upon the school’s commitment to eradicating the achievement gap between the LEP and non-LEP population, which might explain the lack of significance in students’ perception of being motivated and engaged within these various environments. Holfester (2015) states, “Among the unresolved issues in the ESL community are inclusion, mainstreaming, and separation” (p. 1). The argument of best practice, which cannot be determined by this study, continues across schools in the nation.

Although there was no significant difference in the main effect of instructional type, the findings were informative. The goal of education is for all student to succeed by reducing and eradicating the achievement gap and to producing students who will become successful citizens in society. The LEP students saw growth in both types of instructional delivery systems (inclusion classes with traditional instruction versus
students taught in small group pull-out classes with hybrid computer-based instruction). Using small group pull-out classes with hybrid computer-based instruction helped students have high engagement and motivation. However, the using more traditional forms of instruction, such as teacher-led classrooms in which the information is delivered lecture style by the teacher while the students listen and take notes, was just as effective in increasing positive student engagement and motivation. Smart (2004) reported,

For learners who are unfamiliar with using software in language learning and for those who are unaccustomed to inductive or learner-centered activities, the challenge of directly interacting with corpora may have the unintended result of inhibiting learning instead of being a benefit. (p. 186)

Students in typical teacher-led classrooms with access to traditional strategies can see certain levels of success, but access alone is not sufficient.

When considering different instructional types, many factors must be considered. Do computer-based programs enhance the instruction or take the place of it? Does a particular delivery system provide a bilingual instructional platform or a single language delivery? Are students accustomed to using technology as a means of instruction or are they novices with little experience or access to technology? All of these factors can impact the levels of positive student engagement and motivation. Kulik and Kulik (1991) said that the positive aspects of computer-based instruction include reducing the educational costs and enhancing the educational experience and outcomes for students. It is noted that technology-based programs are being used in helping LEP students develop language skills including fluency and comprehension. Ybarra and Green (2003) reports that computers provide instruction that is rich in vocabulary, context clues, and visual
cues. Positive student engagement and motivation are factors that can be impacted via the use of hybrid computer-based instruction; however, as with any form of instruction, the fidelity with which it is implemented is the key factor that corresponds with the success of the instructional endeavor.

In this study, neither type of ESL instructional practice (inclusion classes with traditional instruction versus students taught in small group pull-out classes with hybrid computer-based instruction) resulted in a significantly higher score than the other. Cambria and Guthrie (2010) indicated that situational and enduring interest were possible due to continuous teacher support. They also reported that the belief in oneself was more closely linked to achievement than any other type of motivation. Other factors within the school might also influence the overall success of the LEP student and his or her engagement and motivation. In their research, Echevarria et al. (2015) said that effective schools must consider and focus on climate, culture, high expectations, and effective language acquisition. Regardless of the delivery type, the culture of positive climate and high expectations is essential for student success. The most influential factor in a school affecting student engagement, motivation, and achievement seemed to be the overall culture of the entire school and its emphasis on individualized learning and high yield strategies.

Recommendations

Potential for Practice/Policy

This study examined the effects of gender, LEP status, and instructional type on positive student engagement and motivation in the middle grades. The study was conducted with a sample from Grades 4-8 from three schools in one Southwest Arkansas
school district. The population in the study had a heterogeneous mix of students by gender and LEP status, mainly Hispanic. The LEP population had groups of students who received ESL instruction in inclusion classes with traditional instruction and small group pull-out classes with hybrid computer-based instruction. The findings of this study could provide conclusions for schools that have similar populations in similar grade levels in other areas of the state. Regardless of the size or demographics of the district, instructional leaders must use all available staff, abilities, and resources to meet the needs of all students, regardless of English language mastery.

Engagement and motivation of middle-grade students are important phenomena that must be considered when making decisions such as adding additional staff. Cambria and Guthrie (2010) expressed that “situational interest can become enduring if it recurs with teacher continuing support” (p. 17). As found in the research, the presence of an active, interested teacher in the classroom lends itself to a more engaged and motivated atmosphere. Although these factors are sometimes considered to be qualitative, they can be considered when making major staffing decisions, especially in schools with lower levels of student engagement or motivation.

Administrators must consider the level of motivation and engagement that technology infuses into the classroom and use this data when making decisions concerning purchasing computer software. Many hybrid computer-based instructional programs exist, and some help to increase student achievement. In combination with appropriate teaching, the computer can be used as a crucial tool in the educational process. However, computer-based instructional programs require the purchasing of technology, and the district must weigh the options of this expensive endeavor.
Other factors must be taken into consideration as well. Districts must research the region around them and determine the skills necessary for students to obtain a position in the workforce after graduation. School administrators can use the results of motivation and engagement scales, as well as aptitude tests, to help determine students’ interest levels and combine those with the available workforce to help in the plans for the students’ post-high school experience.

Schools and districts should determine the best high-yield strategies for the classrooms based on the population of that school. Given the statistically significant differences in engagement and motivation mean scores between males and females, the concept of homogeneous scheduling could be a viable option for middle schools. When boys can learn in a classroom in their way and at their pace as well as girls in another classroom in their way at their pace, engagement and motivation may increase for both populations. Schools and districts should also consider providing professional development centering on the learning styles of male and female students. Another professional development opportunity should always be incorporated when a high LEP population is present in the school to ensure the needs of the ELLs are being met as required by federal and state guidelines.

**Future Research Considerations**

Schools and districts have the goal to increase student achievement to result in continuous improvement of the institutions. The ability of the students to develop their abstract thinking and problem solving, to communicate effectively both in oral and written form, and to use new technologies are some of the demands of the global world of
work beyond high school. Recommendations for future studies are that researchers consider the following:

1. Researchers should conduct a longitudinal study to determine if there is a significant increase in engagement and motivation scores over a time, especially in the upper high school years. Because the acquisition of literacy skills takes time for new immigrants, the study could be more effective if repeated over a period of 3 to 4 years.

2. Researchers should conduct a study that compares this population of LEP students who are 100% Hispanic to a population of LEP students who are comprised of different heritages. A school with a heterogeneous mix of numerous heritages may have differing results.

3. Researchers should consider new types of professional development training teachers may need. Because of new training and new teaching techniques or possible scheduling changes, the significance between males and females in engagement and motivation may change.

4. Researchers should conduct a study of the results of positive student engagement and motivation on student achievement on the ACT Aspire examination over the course of several years.

Because the population of the schools in Arkansas will be increasingly diverse in the future and personalized learning will drive the educational decisions of the future, schools should proactively prepare for the changes necessary to meet the needs of students. Teachers need to be equipped with specialized training in gender differences in learning, LEP population issues in education, and technology embedding in all curricular
areas. If the achievement gaps are to be reduced and closed, the educators of the present and future must look to creating classroom environments that accommodate the different learning styles of males and females. Culture and climate of the classroom will be a higher priority as students of various ethnicities and English language deficits continue to populate schools. Student engagement, motivation, and achievement can greatly increase if greater attention is focused on the learning styles associated with gender differences, and classroom evolutions can occur if these differences are accommodated. All students do not have to learn the same way on the same day.
REFERENCES


APPENDIX

Status of Exemption from IRB

Status of Request for Exemption from IRB Review
(For Board Use Only)

Date: 3/22/17
Proposal Number: 2017-028
Title of Project: Effects of LEP Status, Gender and Instructional Factors on Engagement and Motivation of Middle School Students
Principal Investigator(s) and Co-Investigator(s): Holly Cothren  Holly.cothren@clerksschools.org

☐ Research exempted from IRB review.
☐ Research requires IRB review.
☐ More information is needed before a determination can be made. (See attachment.)

I have reviewed the proposal referenced above and have rendered the decision noted above. This study has been found to fall under the following exemption(s):

1 2 3 4 5 6

In the event that, after this exemption is granted, this research proposal is changed, it may require a review by the full IRB. In such case, a Request for Amendment to Approved Research form must be completed and submitted.

This exemption is granted for one year from the date of this letter. Renewals will need to be reviewed and granted before expiration.

The IRB reserves the right to observe, review and evaluate this study and its procedures during the course of the study.

Rebecca O. Weaver
Chair
Harding University Institutional Review Board