ACHIEVEMENT DIFFERENCE BETWEEN ELL STUDENTS AND ENGLISH NATIVE STUDENTS

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ABSTRACT

The research accomplished in this study was completed to find if there is a significant
difference in academic achievement based on English language learners vs. students with
English as their first language. By comparing the academic achievement in 2013
Communication Arts MAP scores between ELL students and English “native” students, results
will show if there needs to be further support in the area of core curriculum mastery for ELL
students to be as successful as English native students. The information gained through this
study supported in the investigation of academic skill gaps in ELL students and English native
students through comparison of 2013 English Language Arts MAP Achievement Level Report.
The understanding of achievement gaps between ELL students and “English only” students
could aid in further investigation for educators to increase English proficiency in ELL student.

The resolution or exact reasoning to the skill gaps is not determined in the data collected,
but a manifold of variables along with ELL students’ present academic level are elements to the
issue’s understanding. Through the process of gathering and analyzing verdicts related to this
matter, existing studies and literature, in addition to gathering statistical data from DESE’s
website regarding the state and school district, the findings show that there is a skill gap that
needs to be addressed in the state of Missouri. English Native students are receiving higher
Communication Arts MAP scores over English Language Leaner students.
INTRODUCTION

*Background, Issues and Concerns:*

Numerous readings have shown that the amount of ELL students enrolling in public schools in America is on the rise. Through research for ELL curriculum, it became apparent that extensive curriculum specifically for ELL students is hard to come by. Specifically found within the state of Missouri, the Department of Elementary and Secondary Education (DESE) obtains explicit requirements and practices for “educating linguistically diverse students.” These requirements were last revised in 2015 and is comprised of eight categorized sections including legal, identification of placement, and program requirements.

The Missouri English Language Development Program concentrates on the learners’ content and language goals/objectives, correlating the program to fit Specific Missouri Learning as well as Missouri Show-Me Standards. The administration of formative and summative evaluations are used to measure ELL students understanding of topics and themes. Grading guidelines for the Missouri ELL program are based on discrepancy made between subject matter awareness and English Language skills. Also available as a grading alternative, ELL students in the program that do not qualify for an A, B, or C grade will be considered for “Pass/Fail Grading.”

Lastly, defining cultural expectations and communication accommodations within the Missouri based program assists staff in better addressing the diverse socio-cultural circumstances of ELL students and their families. Retrieving the background information over Missouri’s academic program guidelines for English Language Learners allows for additional understanding of MAP test results for the Missouri school district being researched.
By comparing the academic achievement in MAP scores between ELL students and English “native” students, results will show if there needs to be further support in the area of core curriculum mastery for ELL students to be just as successful as English native students.

**Practice under Investigation:**

To find if there is a significant difference in academic achievement based on English language learners vs. students with English as their first language.

**School Policy to be Informed by Study:**

The information gained through this study will aid in the investigation of academic skill gaps in ELL students and English native students through comparison of 2013 MAP achievement level report in the subject area of English Language Arts. The results will inform myself and other educators if further services need to be provided to meet the developmental needs of ELL students.

**Conceptual Underpinning:**

Through various studies and discoveries, research has shown academic struggle for ELL students. There is a strong relationship between English language proficiency of ELL students and their performance on assessments. Particular details of this relationship are imprecise due to little available determination to adequate English language proficiency of ELL students. Variables such as “opportunity to learn” and socio economic status moderate student performance. Additional variables such as length of time living in the United States and the student’s ability level in their native language environment. This information that is basing the conceptual underpinning is sourced by the research findings of Frances A. Butler, Martha Castellon-Wellington, and Robin A. Stevens (Butler, Castellon-Wellington, Stevens, 2000).
As noted, these variables could play a large role in ELL students’ academic performance on state and district wide assessments. The understanding of achievement gaps between ELL students and “English only” students could aid in further investigation for educators to increase English proficiency in ELL student. Public schools are receiving high numbers of LEP and ELL students. Investigating if there are apparent differences between proficiency levels in ELL students and English only students can aid in better integration for ELL students to increase overall academic proficiency.

Statement of the Problem:

Studies have shown data proving that ELL students display lower proficiency scores than English native students. Are there developmental skill gaps between ELL students and English native students on 2013 MAP Achievement Level Report in the area of English Language Arts?

Purpose of the Study:

To find if there is a significant different in academic achievement based on English language learners versus students with English as their first language.

Research Question:

RQ#1: Is there a difference in academic achievement between English language learners and English speaking students?

Null Hypothesis:

There is no difference in academic achievement between English Language Learners and English speaking students.
Anticipated Benefits of the Study:

If there is notable difference in academic achievement between English language learners and English speaking students, educators can determine what type of intervention or differentiated instruction is needed to allow ELL students an equal opportunity for educational success. This allows for potential in a new plan for Universal Design of Learning to better educate students in a way the best fits the needs of all learners of varying cultures and abilities instead of personalizing education for just one type of ability or learning style.

Definition of Terms:

ELL: English Language Learners-students who are incapable of communicating fluently or learn successfully in English. These students commonly come from non-English-speaking homes and backgrounds.

AYP- Annual Yearly Progress- The No Child Left Behind Act, instituted in 2000, sets certain goals for school districts to achieve to show student performance. One factor is test scores on the EOC tests in high school and the MAP test in elementary school.

MAP: Measure of Academic Progress-A standardized test that assesses what students have learned in math, reading, writing, and science.

Differentiated Instruction: varying instruction to fit needs and abilities of students’ learning styles in order for students to be successful in learning skills and goals associated with the course objectives.
LEP: Limited English proficient-as defined in the No Child Left behind Act as aged 3 through 21; who is enrolled in an elementary school or secondary school; who has a native/home language other than English whether born in the U.S. or another country, whose difficulties in speaking, reading, writing, or understanding the English language may impact the ability to meet the State's proficient level of achievement on State assessments, to successfully achieve in classrooms where the language of instruction is English.

DESE: Department of Elementary and Secondary Education-Manages and regulates K-12 education in Missouri.

IEP: Individualized Education Program

Summary:

By comparing the academic achievement in MAP scores between ELL students and English “native” students, results will show if there needs to be further support in the area of core curriculum mastery for ELL students to be just as successful as English native students. The information gained through this study will aid in the investigation of academic skill gaps in ELL students and English native students through comparison of 2013 English Language Arts MAP Achievement Level Report. The understanding of achievement gaps between ELL students and “English only” students could aid in further investigation for educators to increase English proficiency in ELL student.
REVIEW OF LITERATURE

Research on children with limited English proficiency has largely concentrated on linguistics as the main arbitrator of student success while lacking consideration for other student demographic characteristics. By approaching ELL students as one “homogeneous group,” misestimating of relationships between language status and academic achievement can occur (Ready & Tindal, 2006, P.2). Another important factor that seems to get over looked is the intellectual development of ELL students over time. In a study done by Douglas Ready and Gerald Tindal (2006) from the University of Oregon, records were taken over a Kindergarten “cohort” class for one academic year from 1998-1999. The study observed ELL students’ academic abilities as they went into Kindergarten and advanced to first grade (Ready & Tindal, 2006).

The students documented within this study were classified as having a central dialect used in his/her household other than English. Furthermore, discrepancy between “language minority” students who were classified as “English proficient” in comparison to “not proficient” students was also taken into consideration. The study was then classified as the Early Childhood Longitudinal Study (ECLS-K) for the Kindergarten of 1998-1999. Cognitive assessments for ECLS-K, given to not proficient students was limited to assessing the mathematics category for Hispanic, Spanish speaking not proficient students (Ready & Tindal, 2006, P. 5).
Classification of English proficient and not English proficient students is key when assessing children. In order to provide appropriate services and mediations to students in need, accurately classifying students is critical. “In special education alone, 13 categories are used to describe various disabilities; talented and gifted programs are based on a classification; economic background identifies Title I children; and language-minority students are organized by degree of English proficiency” (Ready & Tindal, 2006, P. 3). Based on “aptitude-treatment interactions” (Snow, 1977), students are defined by variables such as: ability level, academic aptitude, and other cognitive learning characteristics. Once categorized, an intervention plan or “treatment” can be developed for the various groups of students (P. 3.)

Although classifying skills levels of young ELL students can help educators better understand what these specific learners need, there has been minute evidence that thoroughly supports this approach. According to the Early Childhood Longitudinal Study, the use of categorizing students into groups to develop programs for these students is become more of a problem than a resolution. “Similar problems may be developing in research on language status, as Language-Minority (LM) children vary socially and academically, and functional treatment classifications are elusive. In general, research on LM children can be characterized as inadequately accounting for the myriad differences beyond language status between LM and nonLM children” (Willig, 1985, P.3).

Within the outcomes of this study, achievement patterns were apparent in diverse ethnicities. Contrasting levels of academic achievement concerning Hispanic English proficient minorities, Hispanic not English proficient minorities, and nonHispanic language minority children were present in the findings of the study.
It was noted that both English proficient and not proficient Hispanic students going into kindergarten had a smaller capacity of academic skills in comparison to “non-LM (Language Minority) children, Asian LM/P and Other LM/P children enter[ing] kindergarten with comparable cognitive skills” (P.12).

Variables such as cultural dissimilarities and socioeconomic factors were hypothesized to be apparent differences between Hispanic and non-Hispanic ELL students. “These considerable social and academic differences again highlight the tremendous variability within the LM student population” (P.16). This shows that progress monitoring and early intervention of ELL students is necessary even at the level of early childhood education.

Determining students’ language status and the standards used to group children based on language proficiency of various ethnicities, is still an ongoing inquiry even after the outcomes of the 1998-1999 Kindergarten Early Childhood Longitudinal Study. Those children participating in the Kindergarten Early Childhood Longitudinal Study had their linguistic abilities determined exclusively centered around reading ability.

This determination can display inaccurate data in young learners who are still evolving their literacy skills. ‘In this sense, one can certainly argue that all five-year-olds are “English language learners” ‘ (P.15.)

In conclusion, the findings from the literature reviewed suggest that even if households do not communicate in English as the “primary home language” (P.15,) it is likely that the use of English is spoken in the house on a regular basis. In these circumstances of English being the second language for a household, children within these families are likely to speak more fluent English in comparison to their parents.
Concerning connections between English fluency in addition to additional societal-based academics in education should be concentrated on when developing programs for language minority learners. The outcomes of the literature and investigation reviewed, propose that characteristically low academic success is not always the case for the various proficiency levels of language-minority students. As diverse learners are classified in an attempt to better meet their learning needs, students’ linguistic proficiency levels “may or may not” have an association with their learning (P.16.) As a result, emphasis on ELL students’ curricular performance is advised to be a main focus in providing appropriate education to diverse learners.
RESEARCH METHODS

Research Design:

The design of the research constructed based on the archived data found on DESE’s website. The independent variable being tested was ELL/LEP students and “English native” students, while the dependent variable being tested was the English Language Arts MAP achievement report results. When retrieving the archived data on the site, information was gained by researching a Missouri based school district’s 2013 MAP achievement scores specifically in the area of English Language Arts.

In order to gain the specific information required for the research paper, the school’s summary level of all MAP achievement results in the area of English Language Arts was researched. Under the category of race and ethnicity, with the grade level of third grade and up, information on ELL students and non IEP Students as the “English natives” were retrieved.

Study Group Description:

The students within the investigation’s study group are from the Missouri area in one school district with fourteen schools within the district. Ages of the study group students range from third grade and up to high school level within the Missouri school district. Looking at the 2013 overall school district’s MAP results in the area of English Language Arts, each independent variable being compared includes ELL students and Non IEP students. Overall district results in the top two tiers of proficient and advanced for 2013-2014 English Language Arts MAP Mean Scale where recorded using a scoring key.
Data Collection and Instrumentation:

Data collection will be completed through the retrieval of archived data on the DESE website. Instrumentation of the data collection is done through electronic retrieval of the archived overall district achievement records in the area of English Language Arts for 2013.

Statistical Analysis Methods:

Due to the nature of the research, comparing differences of two variables to know if there is a difference in achievement of ELL students and English native students. The use of a T-test as the statistical analysis method will assess whether the means of the two groups are statistically different from each other. The mean, mean D, t-test, df, and p-value were determined from this trial. T-test analysis will allow for the use of a ratio formula to compare a Missouri district’s overall English Language Arts MAP achievement between ELL students and English speaking students. The Alpha level was set at 0.10 to test the null hypothesis: There is no difference in academic achievement between English Language Learners and English speaking students.
FINDINGS

A t-test was conducted to decipher whether there was a difference in academic achievement on 2013 English Language Arts MAP test based on ELL students and English native students. The following charts, tables, and graphs will reveal the results centered on the statistical data found on the Missouri DESE website on 2013 overall district MAP achievement in the area of English Language arts for elementary, middle school, and high school grade levels in one Missouri school district.

Figure 1

_t-Test Analysis Results for 2013 ELL students and English Native Students Communication Arts MAP scores_

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>Mean D</th>
<th>t-Test</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL Students (499)</td>
<td>281.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Native Subgroup (4,719)</td>
<td>345.83</td>
<td>-64.3</td>
<td>-3.25</td>
<td>24</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Note: Significant when p<=0.10

Fourteen schools consisting of eleven elementary schools, two middle schools, and one high school in one Missouri school district over 2013 MAP scaled scores between ELL students and a “super subgroup” of English native students in the area of Communication Arts. The data collected from the Missouri DESE website contains the overall district scaled MAP scores for the Communication Arts category for eight grade levels for 2013, and distinction between ELL students and English native students subgroup achievements. The mean of the ELL students was 281.49 and the mean for the English speaking subgroup was 345.83. The Mean D, or difference between the two groups, was 64.3. The t-test result was 3.25 and the df was 24. The null hypothesis states that there is no difference in academic achievement between English Language Learners and English speaking students.
The null hypothesis is rejected because the p-value, 0.003, is less than the alpha level, 0.10. Reviewing the differences in MAP scores between ELL students and the “super subgroup” of English speaking students, it is significant enough to reject the null hypothesis. Therefore, there is a difference in academic achievement between English Language Learners and English speaking students for 2013 English Language Arts MAP results for this Missouri school district. As a result, English Native Students had the highest achievement in comparison to English Language Learner students in the district.

Figure 2

![Pie Chart](image.png)

2013 MAP Scores for ELL Students and English Native Students

The mean of the English Native Super Subgroup students’ Communication Arts MAP scores in 2013 were 345.83. This depicts that 55% of English Native students within this Missouri school district scored in the top two tiers for the MAP standardized test in English Language Arts. The pie chart also shows that the number of ELL students’ MAP scores in the Missouri school district were lower by 10% with a mean of 281.49.
When it comes to achievement on the MAP test, there are four tiers of achievement levels that a student can score within on the MAP test. The four tiers include: below basic, basic, proficient, and advanced. The tiers are based on the number of questions that are correctly answered. Focusing on the top two tiers that meet state assessment requirements, proficient and advanced, the average percentage for both categories of students (ELL and English Native Supgroup) were noted from the Missouri District. The column chart shows that both ELL students and English Native students achievement is close in range of the MAP scores for Communication Arts, but English Native students achieved higher MAP schools within the district for the Communication Arts category. 45.63% of English Native speaking students scored in the top two tiers, while only 12.91% of ELL students within the district achieved scores in the top two tiers for English Language Arts MAP scores in 2013.


Figure 4

**t-Test Analysis Results for 2013 ELL students and English Native Students Communication Arts MAP Scores Top Two Tier Percentages**

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean</th>
<th>Mean D</th>
<th>t-Test</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELL Students (125)</td>
<td>12.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Native Subgroup (2,844)</td>
<td>77.85</td>
<td>-32.7</td>
<td>-5.58</td>
<td>14</td>
<td>0.00006</td>
</tr>
</tbody>
</table>

Note: Significant when p<=0.10

Fourteen schools consisting of eleven elementary schools, two middle schools, and one high school in one Missouri school district for 2013 MAP scaled scores between ELL students and a “super subgroup” of English native students in the area of Communication Arts. The data collected from the Missouri DESE website for this particular t-test result contains the overall district scaled MAP scores top two tier percentages in the areas of proficient and advance for the Communication Arts category for eight grade levels for 2013, and distinction between ELL students and English native students subgroup achievements. The mean for ELL students’ top two tiers was 12.91 and the mean for the English speaking subgroup in the top two tier percentages was 77.85. The Mean D, or difference between the two groups, was 32.7. The t-test result was 5.58 and the df was 14. The null hypothesis states that there is no difference in academic achievement between English Language Learners and English speaking students. The null hypothesis is rejected because the p-value, 0.00006, is less than the alpha level, 0.10.

Reviewing the differences in the top two achievement tiers on the English Language Arts section of 2013 MAP scores between ELL students and the “super subgroup” of English speaking students, it shows a substantial difference and the null hypothesis is rejected.
As a result, there is a variance in academic achievement level, in the areas of proficient and advanced, English speaking students had significantly higher achievement levels in comparison to English Language Learners for the 2013 English Language Arts MAP results for this Missouri school district.

Figure 5

The mean of the English Native Subgroup students’ in the top two tiers of achievement Communication Arts MAP scores in 2013 were 77.85. This depicts that 86% of English Native students within this Missouri school district scored in the top two tiers for the MAP standardized test in English Language Arts for the 2013 academic school year. The results also show that the number of ELL students’ MAP scores in the top two achievement tiers in the Missouri school district for 2013 was only 14% with a mean of 12.91.
CONCLUSIONS AND RECOMMENDATIONS

The conclusions conveyed from this study indicate that for 2013, English Native students within the Missouri school district performed better than the students within the district that were designated as English language Learners on the English Language Arts section of the 2013 MAP exam. The results show there is a substantial variance between the achievement of students in the ELL program and students that are English Native on the English Language Arts MAP exam. The t-test outcome from the 2013 testing year designated that the p-value was 0.003. In addition, the 2013 t-test results for the top two MAP achievement tiers between ELL students and English Native students had a p-value of 0.00006, both results were much lower than the alpha level set at 0.10. As a result, the null hypothesis established was rejected for both t-test analyses. There is a dissimilarity between the performance of ELL students and English Native students on the English Language Arts MAP exam for the Missouri school district.

The conceptual underpinning of researchers, Frances A. Butler and Martha Castellon-Wellington, was thoroughly reinforced throughout the outcomes of this investigation. Although research and data on this particular subject are still ongoing, variables within the students’ lives while placed in the ELL programs can affect performance and achievement in assessments. With the framework of providing free and appropriate public education to all learners, while also contributing unbiased admittance to the program of study and to assessment on behalf of all learners in the United States, consideration to students who are not fluent or do not speak English as their first language remains a rising matter.

Across the country, there are a wide array of curriculum interventions and programs that are accessible for ESL and ELL students. The struggle is found in the application process of these programs, although they may be critical due to the range in diversity among students.
As stated previously, based on the conceptual underpinning, many factors play into an ESL or ELL student’s academic success. Correlation between English language proficiency of ELL students and their performance on assessments is found to be a strong relationship. The variables stated in the research’s conceptual underpinning included “opportunity to learn” and socio economic status were found to be factors in student performance. Additional variables of student performance mentioned in the conceptual underpinning included length of time living in the United States and the student’s ability level in their native language environment. Based on the research results, I do believe that results of the assessment scores in ELL student would vary between states and even fluctuate in different cities. Although collecting assessment data from one city’s school district in the state of Missouri, the representation of how the present academic level of ELL students can vary based on multiple variables is present during this investigation.

The resulting charts, tables, and graphs revealed the results centered on the statistical data found on the Missouri DESE website on 2013 overall district MAP achievement in the area of English Language arts for elementary, middle school, and high school grade levels in one Missouri school district. Looking over literature and related studies based on achievement levels of ELL students and possible skill gaps, it is prevalent that test results for one city’s school district within the state of Missouri is only a tiny piece to a very large puzzle. While the data collected depicts achievement gaps between ELL students and English Native students in the area of English Language Arts MAP Scores, the gap is probably seen as small when compared to larger, more diverse schools in areas such as California, where the diversity ratio is larger in school districts.
Overall, skills gaps were prevalent within the data collected. As a result of the data collected, awareness to this Missouri school district to better evaluate ELL students present academic levels and perhaps take variables as described by the research findings of Frances A. Butler and Martha Castellon-Wellington found in the conceptual underpinning, should be taken into account when providing intervention for ELL students in the future. In result of the research findings, better integration for ELL students to increase overall academic proficiency should become a focus.
REFERENCES


