



Academic Achievement Outcomes of Latino English-Language Learners in Texas: A Longitudinal Analysis

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What We Studied

Texas has one of the highest populations of English Language Learners (ELLs) in the country, with a complex system for ELL identification, program placement, and high-stakes assessment. Spanish-speaking Latino ELLs represent a large proportion of this population in this state. The long-term academic achievement of ELLs identified in elementary grades and educated in different program placements is not well known. Prior research presents support for Bilingual Education models as most promising for future student achievement.

Using strict sampling criteria and analysis of variance (ANOVA) procedures, this study compared student achievement during secondary years, as measured by high-stakes assessments, of demographically similar Latino former-ELLs, long-term ELLs, and non-ELLs who received a variety of language service programming during elementary school. Former-ELLs are students reclassified as English proficiency by the start of secondary education, while long-term ELLs are not reclassified until after 5th grade or not at all. Data was examined from a cohort of 18,188 students enrolled in all 10 major urban school districts in Texas from 3rd to 9th grades, between 2003-2004 and 2009-2010 school years. Math and reading high-stakes test (TAKS) scores during students' 7th and 9th grade years were used as outcome variables, while controlling for students' baseline English proficiency level.

How We Analyzed the Data

1. Controlling for demographics (e.g., Latino, free/reduced lunch), and compared with **non-ELL peers**, are **group mean differences** present between students enrolled in various primary language program models (**ESL vs. bilingual vs. equal years ESL/bilingual vs. no services**) during elementary years on ELL student **academic achievement in secondary grades**?
2. How do **former-ELLs** (defined as reclassified to English proficient in 5th grade or earlier) perform on measures of academic achievement in 7th and 9th grade compared to **long-term ELLs** (defined as reclassified to English proficient after 5th grade, or not reclassified by end of study) and their **non-ELL** counterparts?
3. What **individual differences** between former-ELLs and long-term ELLs significantly contribute to differential achievement outcomes?

Sampling*

- Students enrolled in one of the 10 "Major Urban" Texas school districts** as of 2009: Dallas, Houston, El Paso, Austin, Fort Worth, North East, Northside, San Antonio, Ysleta, Arlington for duration of study
- Demographic criteria: Latino/Hispanic, receiving free/reduced priced meals, home language of Spanish and/or English, general education students
- 3rd graders in 2003-2004 school year, not grade-retained during study years

Variables

- Primary language program model received derived into categories: English as a Second Language (ESL); bilingual education, equal years ESL/bilingual; no language services, non-ELL
- ELL-type derived into categories: former- ELL, long-term ELL, non-ELL
- Math and Reading TAKS scores as outcome variables
- TELPAS score for ELLs in 3rd grade to control for baseline English proficiency
- Immigrant status

Variables Collected at Each Time Point			
3rd Grade: 2004	7th Grade: 2008	9th Grade: 2010	Additional Variables:
TELPAS score	TAKS reading score	TAKS reading score	Immigrant Status – Yes/No
District of attendance	TAKS math score	TAKS math score	Primary classroom model received
			ELL type

* Students were not randomly assigned to groups; therefore, relationships between variables are not causal.

**District names are arbitrarily numbered 1-10 in all results

What We Discovered

Chart 1 depicts mean TAKS scores of students enrolled in each language program model at all secondary study points. Significant group differences exist for reading scores but not math. Students in the non-ELL comparison group performed about as well as students who did not receive any language programming services. Students who received primarily ESL services performed slightly higher in reading than those who primarily received bilingual services. Finally, students who received equal years of ESL and bilingual education performed the lowest across all study points.

Chart 2 depicts mean TAKS scores of each ELL type at all secondary study points. Group mean differences existed for both 7th and 9th grades, but results varied by subject. For reading, non-ELL students performed the highest in both 7th and 9th grades. For math, former-ELL students performed the highest in both 7th and 9th grades. Both former – ELLs and non-ELLs performed significantly higher than long-term ELL students.

Chart 3 shows the interactions between ELL-type and language program when all students are included in the analysis. Former ELLs who received equal years of ESL and bilingual performed significantly lower than all other language programming. Long-term ELLs who did not receive any language services performed significantly higher than those enrolled in all other language programs.

Chart 1: Mean achievement scores of each language program model at all study points

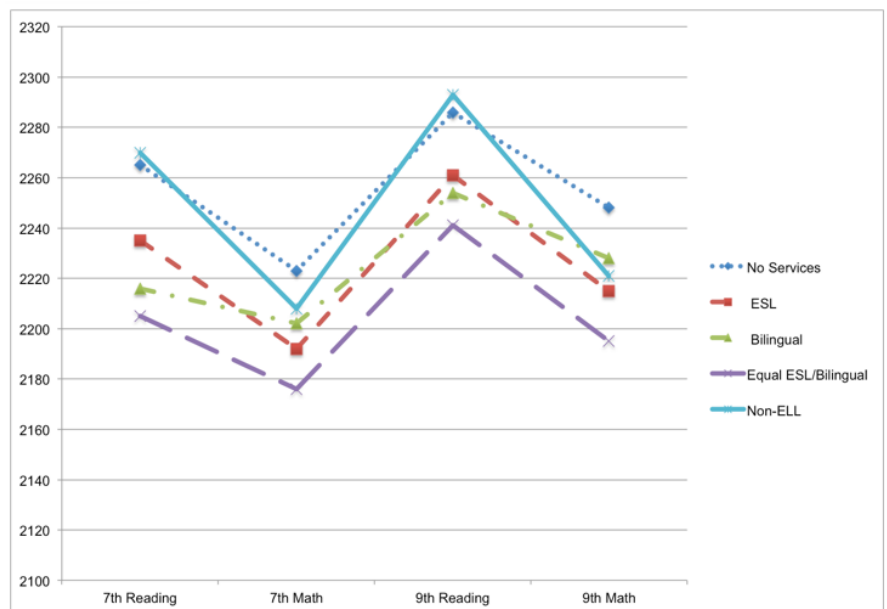


Chart 4 shows the interactions between ELL-type and language program controlling for baseline TELPAS score for ELL students. Former ELLs in bilingual classes performed higher than all other programs. Long-term ELLs who received no services or bilingual scored higher than students who received ESL or equal years of ESL and bilingual.

Chart 5 shows the 7th grade math interactions between ELL-type and language program for all students. Former ELLs who received equal years of ESL and bilingual performed significantly lower than all other language programming. Those in bilingual performed comparably with students who received no services, and better than those in ESL. Long-term ELLs who did not receive any language services or were in bilingual performed significantly higher than those enrolled in ESL or equal years bilingual and ESL.

When analyses were conducted on all students included in the study:

- ELL-type by language program significant for 7th grade reading and math
- No significant interactions in 9th grade
- Immigrant students performed higher than non-immigrant students in 7th grade reading and 9th grade math
- District differences exist

When analyses examined ELL students only and included baseline TELPAS score as a covariate:

- Former-ELLs performed better than long-term ELLs at all-time points
- Immigrant students performed better than non-immigrants at all-time points
- ELL type by language program significant for 7th grade reading only
- ELL students who received no language programming performed comparably with their non-ELL peers, and significantly higher than ELLs enrolled in ESL, bilingual, or equal years of ESL and bilingual, in both math and reading.

Chart 2: Mean achievement scores of each ELL type at all study points

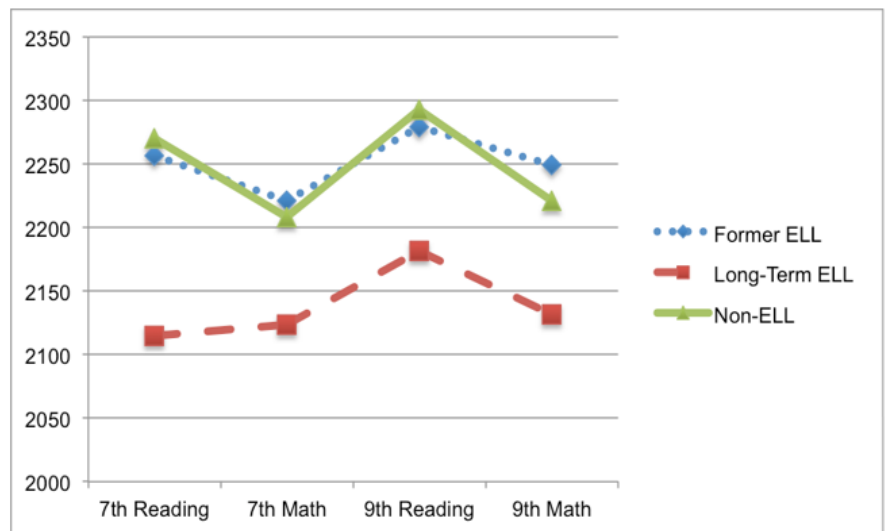


Chart 3: 7th grade reading means for each ELL type by language program

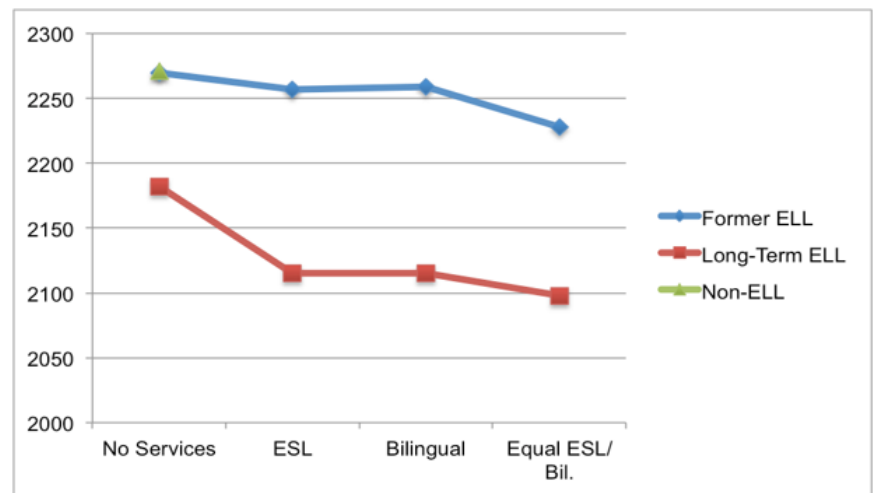


Chart 4: 7th grade reading adjusted means for ELL type by language program w/TELPAS covariate

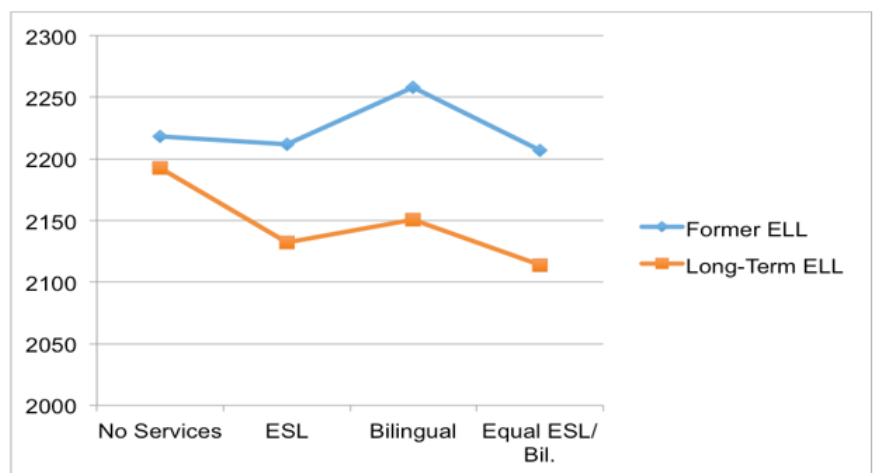
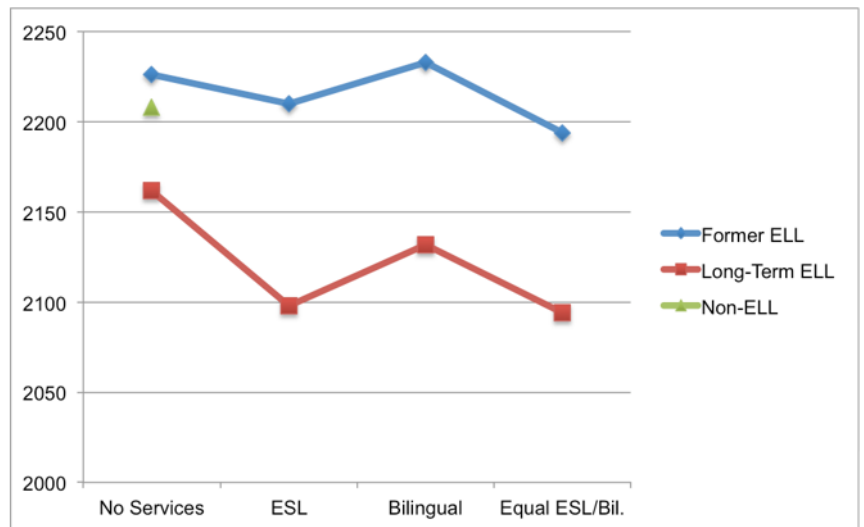


Chart 5: 7th grade math means for each ELL type by language program



- Of students enrolled in language programming, ELLs in ESL performed higher than ELLs in bilingual or equal years of ESL and bilingual.
- Language programming differences in achievement were evident for reading scores but not for math scores.
- As students age, language program differences became insignificant. There were no differences between students who received various types of language programming during elementary years by the time they reached 9th grade, in either math or reading scores.
- Former-ELLs have higher achievement scores than long-term ELLs, and perform comparably with non-ELL peers.

Policy Recommendations/Conclusions

- Bilingual programs are still promising for ELLs able to achieve English proficiency by middle school.
- Possible explanations for the higher achievement of students who did not receive language services include:
 - Social learning from native speaking peers provides an immersive English experience
 - Most students who did not receive language services were due to parent choice. It is possible that augmented language learning occurred outside of school.
 - Sampling included only general-education students; therefore, ELLs who struggled in mainstream English classes may have been diverted to special education classes.
 - Economic segregation of school districts may play a role. Schools where the proportion of native-English speakers are large enough to warrant mainstream English classes may have been located in communities with more resources.
- There exists a gap between theory and practice. While prior research supports bilingual education as the most promising language program model, results were not confirmed in this study. Furthermore, each district had different proportions of ELLs in each language program model, with some districts showing clear preference for one program over another, suggesting unequal access to language program options.
- Significant differences existed between school districts both in mean achievement scores and most common language services provided, suggesting a lack of standardization between districts. This may reflect the national movement away from standardized practice towards allowing states and districts more autonomy in practice and policy decisions.
- This study does not provide support for the superiority of any language programming over another. However, it highlights an important group of students that may not have been previously examined. Additional research examining the characteristics of students who did not receive any language services is a necessary area for future study.

Additional longitudinal cohort research including all school districts in Texas is warranted in order to draw conclusions about these preliminary findings.

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