What factors are associated with the likelihood of an English learner becoming a long-term English learner?

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Overview. The number of English learners (ELs) who do not reclassify as English proficient after the first five years of schooling has increased across the state of Texas. ELs are a diverse population of students with varying levels of English proficiency. Many students who begin school as an EL reclassify as English proficient in a timely manner and go on to achieve academic success. Students who remain EL after five years in school are considered "long-term English learners" (LTELs) and are at risk for negative academic outcomes, such as lower test scores, higher risk of drop out, and lower on-time high school graduation rates. The purpose of this brief is to examine student-, campus-, and neighborhood- characteristics that can be considered risk or protective factors for the likelihood of an EL becoming LTEL, with the goal of helping school districts identify which students may be at-risk of becoming LTEL. This brief is part of a larger research project examining characteristics of LTELs, patterns of reclassification, predictors of LTEL status, and outcomes of LTELs within the state of Texas, with particular attention to 10 Houston-area public school districts.

KEY TERMS:

ENGLISH LEARNER (EL): A student who is in the process of acquiring English and has another language as their primary language, also known as Emergent Bilingual

LONG-TERM ENGLISH LEARNER (LTEL): An EL student who remains EL after completing five years in school

RECLASSIFICATION: The process by which an EL student is identified as English proficient and no longer classified as an English learner

EL PROGRAM TYPE: The type of linguistic services or instruction that an EL student receives at school to support reclassification; there are three general types: dual-immersion, bilingual, or English as a second language (ESL) instruction

Key Findings

Risk and Protective Factors

- **The strongest risk factors** for becoming LTEL included grade retention and special education status at any point during elementary school.

- **The strongest protective factor** against becoming LTEL was entering first grade with higher English comprehension.

EL Program Type

- **Participating in two or more EL programs was associated with an increased risk of becoming LTEL**, regardless of program type.

- For students who remained in one program during elementary school, **students who participated in either a dual-immersion or a bilingual program had a lower likelihood of becoming LTEL** than ELs who participated in an ESL program.

- **EL program type mattered differently** for students in lower and higher economically disadvantaged campuses.

Background

For English learner (EL) students, reclassification as English proficient is an important educational marker, because it is upon getting reclassified that ELs gain access to the full range of educational and instructional programs available in schools (Umansky, 2016). Many ELs reclassify in a timely manner and achieve academic success; however, some remain ELs for several years despite involvement in programs aimed at improving their English-language skills. These students, often referred to as long-term English learners (LTELs), are at risk for negative educational outcomes.

In this study, an LTEL is identified as a student who remains EL after 5 years in school (Cashiola & Potter, 2020). In other words, most students who begin middle school as an EL are considered LTEL. In addition to not having acquired the English-language skills needed to reclassify, LTELs often make little academic progress in their home language, resulting in lower grades on classroom assignments, lower passage rates for content-area state achievement assessments (which are required for promotion at several grade levels), and are less likely to meet graduation requirements (Olsen 2014). LTELs are at particularly high risk of dropping out of high school relative to reclassified ELs and non-ELs (Gwynne et al., 2012). Given the risk of negative educational outcomes for LTELs, the purpose of this study is to identify which student-, campus-, and neighborhood-level factors are associated with the likelihood of an EL student becoming LTEL.

Research Questions

This brief asks the following questions:

1. What student, campus, and neighborhood characteristics predict a student becoming LTEL?
2. What is the association between the type of EL program a student participated in (i.e., dual-immersion, bilingual, or ESL) and likelihood of becoming LTEL?
3. Does the association between EL program and LTEL differ based on campus characteristics, specifically the percent of economically disadvantaged students at a campus?

This study leveraged data from Public Education Information Management System (PEIMS) to follow three cohorts of EL students across ten Houston-area public school districts who started first grade in 2012-13, 2013-14, and 2014-15. Each cohort was followed for five years to the sixth grade, when LTEL status was determined. Campus factors, such as the percent of economically disadvantaged students at a campus, and accountability ratings came from the Texas Academic Performance Reports (TAPR). Finally, American Community Survey (ACS) data were used for neighborhood measures.

Analyses presented here restricted the sample to only students whose home language was Spanish, but separate analyses for students whose home language was a language other than Spanish were conducted and can be made available upon request. Please see the Appendix for further information on the data as well as methods employed in these analyses.

1 EL students who were retained a grade or were placed in special education programs were at the highest risk of becoming LTEL.

Research Question 1: What student, campus, and neighborhood characteristics predict a student becoming LTEL?

Factors associated with the likelihood of becoming LTEL were divided into risk factors (or factors that increased the likelihood of an EL becoming LTEL) and protective factors (or factors that decreased the likelihood of an EL becoming LTEL). See Figure 1 for the full list of risk and protective factors.

Risk Factors. There were several characteristics that increased the likelihood of an EL becoming LTEL, and these factors were divided into higher, medium, and lower risk factors. The two characteristics that placed an EL at higher risk of becoming LTEL were being retained a grade and being identified for special education services at any point during elementary school. Medium risk factors included if the student was economically disadvantaged, received disciplinary action, had a higher rate of absenteeism, changed schools during the school year, or was in a campus with a higher percent of economically disadvantaged students. There were two lower risk factors including being in a campus with a higher mobility rate and being in a campus in a neighborhood with a higher unemployment rate.

Protective Factors. There were also several characteristics that decreased the likelihood of an EL becoming LTEL, and these factors were divided into higher, medium, and lower protective factors. There was one higher protective factor, which was having a higher TELPAS (or English proficiency) score when an EL entered first grade. There were no medium protective factors. There were several lower protective factors, including being female compared to being male. In addition, being a recent immigrant as well as parent denial of EL services were associated with a lower likelihood of becoming LTEL (although these two groups represented only 4% and 7% of the sample, respectively). Finally, being in a campus with a higher Index 1 (accountability) score as well as being at a campus in a neighborhood with a higher population of residents were lower protective factors from becoming LTEL.

Figure 1. Risk and protective factors of becoming LTEL

Higher risk
Student Characteristics:
- Grade retention
- Special education

Medium risk
Student Characteristics:
- Economic disadvantage
- Discipline – in-school or out-of-school suspension
- Absenteeism
- School-year mobility

Campus Attributes:
- High percent of economically disadvantaged students

Lower risk
Campus Attributes:
- Higher mobility rate

Neighborhood Attributes:
- Higher unemployment rate

Higher protection
Student Characteristics:
- Higher TELPAS score in first grade

Medium protection
None

Lower protection
Student Characteristics:
- Sex: Female
- Immigrant status: being a recent immigrant
- Parent denial of EL services

Campus Attributes:
- Higher Index 1 score

Neighborhood Attributes
- Higher total population

2 EL students who participated only in one EL program had a lower likelihood of becoming LTEL, particularly if it was a dual-immersion or bilingual program.

Research Question 2: What is the association between the type of EL program a student participated in and the likelihood of becoming LTEL?

For EL students who participated in only one EL program during elementary school, the analysis found that students who participated in only dual-immersion or bilingual programs had the lowest likelihood of becoming LTEL (Figure 2). In fact, being in either a dual-immersion or bilingual program exclusively were the only contexts where the likelihood of becoming LTEL was less than 50%. Students who participated only in an ESL program had the next lowest likelihood of becoming LTEL. However, being in an ESL program alone was associated with more than a 50% likelihood of becoming LTEL.

Changing programs, or participating in two or more programs, was associated with an increased risk of becoming LTEL, regardless of program type. In particular, participating in any combination of two EL programs was associated with a 60-64% chance of becoming LTEL. Participating in all three EL programs in elementary school (i.e., changing EL programs multiple times), was associated with the highest risk of becoming LTEL – more than three-quarters of English learners who received instruction in all three programs went on to become LTEL.

Figure 2. Students who participated in one EL program had a lower likelihood of becoming LTEL.
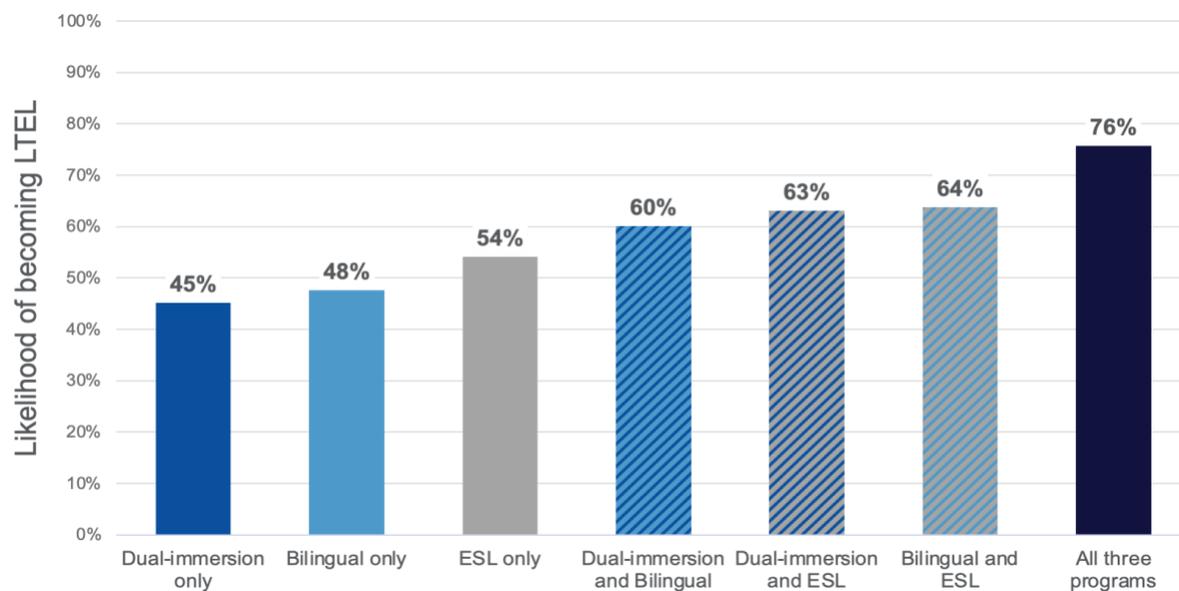
3 The association between type of EL program and likelihood of becoming LTEL differed for higher and lower economically disadvantaged campuses.

Research Question 3: Does this association differ based on campus characteristics, specifically, the percent of economically disadvantaged students at a campus?

The association between program type and likelihood of becoming LTEL was then compared across different types of campuses. To do this, campuses were divided into lower or higher economically disadvantaged campuses. Because half of the campuses in Houston area public schools have more than 80% economically disadvantaged students, campuses were assigned an economic disadvantage category relative to the region. There were noticeable differences between the associations between program type and the likelihood of becoming LTEL by economic disadvantage category.

For higher economically disadvantaged campuses – campuses serving students where more than 90% qualify as economically disadvantaged – the associations between program type and becoming LTEL are largely the same discussed above. For example, ELs exclusively in dual-immersion programs had the lowest likelihood of becoming LTEL. The reason for this similarity in pattern is that most ELs attend schools that were considered higher economically disadvantaged in the Houston area. In addition to the benefits of dual-immersion programs in higher economically disadvantaged schools, similar patterns were seen for students in multiple programs – being in two or more EL programs was associated with a higher chance of becoming LTEL.

For lower economically disadvantaged campuses – campuses serving students where less than 51% qualify as economically disadvantaged – the association between EL program and becoming LTEL and the consequences of being in multiple EL programs looked much different. For example, ELs in a bilingual program or a combination of dual-immersion and bilingual programs had the lowest likelihood of becoming LTEL. Furthermore, students in most programs and combination of programs at lower economically disadvantaged campuses had less than a 40% chance of becoming LTEL. The one exception was participating in all three EL programs, which was associated with an almost 60% chance of becoming LTEL.

Figure 3. EL program and LTEL status were different for higher and lower economically disadvantaged campuses.
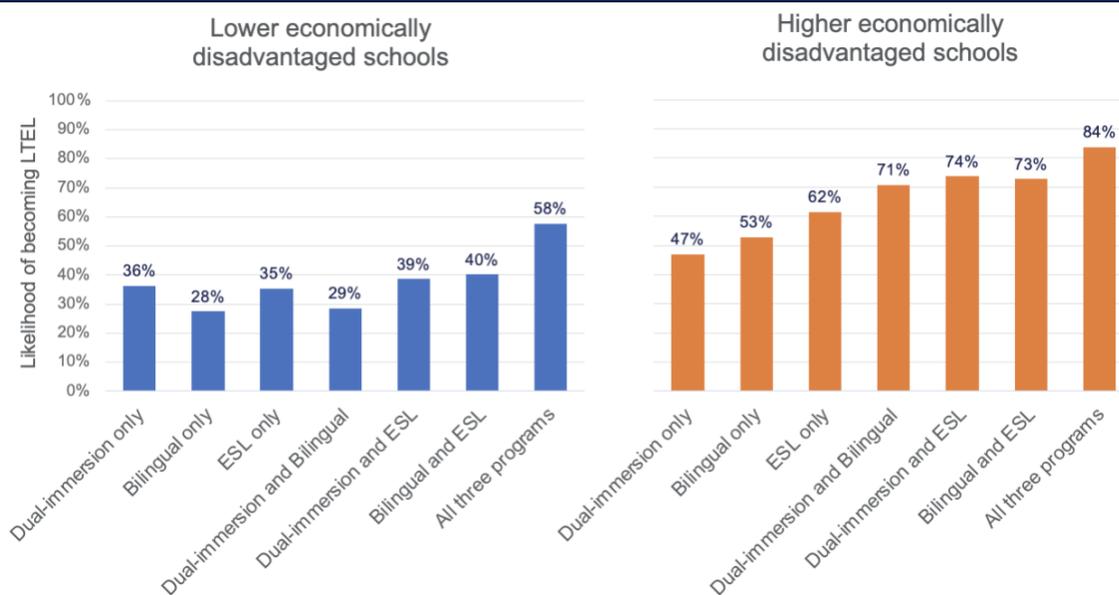
Note:
Lower economic disadvantage: campus falls below the 25th percentile of economically disadvantaged students relative to the region (51% or fewer).
Higher economic disadvantage: campus falls above the 75th percentile of economically disadvantaged students relative to the region (90% or more).

Summary and Discussion

Looking at 10 public school districts in the Houston area, several factors predicted the likelihood of an English learner becoming a long-term English learner. These factors were separated into risk factors – characteristics that increased an EL student's likelihood of becoming an LTEL – and protective factors – characteristics that decreased the likelihood of becoming an LTEL.

Risk Factors
Grade retention and special education identification in elementary school were the highest risk factors for ELs becoming LTEL. Other risk factors included suspension, absenteeism, and switching schools during the school year. In addition, changing EL programs, or participating in multiple EL programs in elementary school, placed EL students at additional risk for becoming LTEL. These findings point to the need for continuity of instruction, which is important for the educational success of all students, particularly in the early elementary grades (Stipek et al., 2017).

Protective Factors
Higher English comprehension skills at the start of elementary school was the highest protective factor against ELs becoming LTEL. In addition, two EL programs were associated with a decrease in the likelihood of becoming LTEL. Specifically, EL students who participated exclusively in a dual-immersion program or a bilingual program during elementary school were less likely to become LTEL. These findings are in accordance with previous research on the importance of supporting a student's home language while learning English at school (Ortiz & Franquiz, 2019).

Implications for Policy & Practice

Grade retention and special education practices for EL students need further examination. Special needs identification and grade retention are factors that place EL students at risk for becoming LTEL. Research has found ELs are overrepresented in special education starting in third grade when reading proficiency starts being assessed (Becker & Deris, 2019, Samson & Lesaux, 2009). This may point to an inability for assessments and diagnostics to distinguish between English comprehension difficulties and learning disabilities. Similarly, ELs are more likely to be retained a grade due to not reaching reading proficiency, particularly in 3rd grade (Caton et al., 2019). Research on the benefits of grade retention for ELs is mixed, and recent research points to the costs outweighing the benefits (Caton et al., 2019). A further examination on how grade retention and special education services interfere with reclassification for ELs is needed. Regardless, the need for early intervention and EL services is clear.

EL programs that support a student's home language provide greater protection against becoming LTEL. In accordance with previous research (de los Reyes et al., 2018), it is clear that programs supporting the student's home language (bilingual or dual-immersion programs) provide more protection from becoming LTEL than an English-only immersion program (i.e., ESL). At the same time, the benefit of receiving instruction exclusively in one program type is also important, and when students change programs, the risks of ELs becoming LTEL increase significantly. For campuses currently offering ESL instruction and choosing to change to dual-immersion or bilingual programs, these findings point to the possibility of phasing in new programs, or introducing new programs to new cohorts of students while keeping existing programs for current cohorts of students. Alternatively, bridging efforts can be made to establish greater continuity in instruction as schools and districts transition from ESL to dual-immersion or bilingual programs. In other words, simply changing programs without bridging or phasing-in is likely to undermine reclassification efforts despite intentions to provide "best practices" to students.

Data and Methods

Data for these analyses come from the Texas Public Education Information Management System (PEIMS) enrollment data from school year 2012-13 through 2019-20. Campus factors came from the Texas Academic Performance Reports (TAPR), and American Community Survey (ACS) data were used for neighborhood measures. Students from 10 Houston area public school districts were included in the analyses. Since Texas requires students to be enrolled in school starting in 1st grade, three cohorts of 1st grade students in school years 2012-13, 2013-14, 2014-15 were included and followed for 5 years until most of the cohort was in 6th grade. EL status was determined by their limited English proficiency (LEP) status. Student data were linked across multiple years to determine if and when EL students reclassified.

These cohorts consisted of 57,945 students from 419 campuses. These students were predominantly Hispanic and economically disadvantaged. In addition to student demographic data, information about the schools they attended during their first 5 years in Texas public schools was included. Neighborhood factors for the campuses students attended were also included as predictors. Due to frequent student mobility (i.e., students changing elementary schools), a campus was assigned a percentile score (based on the Houston region) for all campus and neighborhood predictors for each school year. Then, an average percentile score was calculated for each student based on the school(s) he/she attended during those 5 years. As such, the campus- and neighborhood- factors represent the average characteristics of the campuses the students attended during elementary school.

Analytic Method

Binary logistic regressions were utilized to predict the likelihood of an EL becoming LTEL. Student-, campus-, and neighborhood-level factors were entered as predictors of LTEL status (0=not LTEL, 1=LTEL). For research question 1, the magnitude of the risk and protective factors (i.e., lower, medium, or higher) were determined based on marginal effects coefficients showing the percent likelihood of ELs becoming LTEL based on each predictor (see Table 1 for a list of all predictors). Marginal effects coefficients were defined as lower risk/protective factors if they reflected less than a 4% change in the likelihood of becoming LTEL, coefficients reflecting between a 4% to 10% change in likelihood were considered medium risk/protective factors, and coefficients reflecting greater than a 10% change in likelihood were considered higher risk/protective factors. For research question 2, a three-way interaction term consisting of the three program types was added as a predictor of LTEL status (continuing to control for all relevant student-, campus-, and neighborhood-level factors). Marginal effects for each combination of program type were produced to show the predicted probability of a student becoming LTEL within each category (estimates are presented in Figure 2). Pairwise comparisons were conducted to determine if the differences among these categories were statistically significant.

For research question 3, two separate logistic regressions were conducted for lower and higher economically disadvantaged campuses. In the Houston region, half of campuses have 80% or more economically disadvantaged students. Therefore, campuses were assigned as lower or higher economically disadvantaged relative to the region. First, campuses were categorized as lower economically disadvantaged if they fell below the 25th percentile of economically disadvantaged students relative to the region. Campuses were considered lower economically disadvantaged if they had 51% or fewer economically disadvantaged students. Conversely, campuses were categorized as higher economically disadvantaged if they fell above the 75th percentile of economically disadvantaged students relative to the region. In the Houston region, campuses were considered higher economically disadvantaged if they had 90% or more economically disadvantaged students.

Appendix

Table 1. Predictors included in the logistic regression predicted likelihood of becoming LTEL .

Student (PEIMS):

- Economic disadvantage
- Sex
- Special education
- Immigrant status
- School-year mobility
- Grade retention
- Discipline – ISS or OSS
- Absenteeism
- TELPAS score in first grade
- Preschool participation
- Parent denial of EL services

Campus (TAPR):

- Percent economically disadvantaged students
- Mobility rate
- Index 1 score

Neighborhood (ACS):

- Less than HS diploma
- Total population
- Foreign born
- Unemployment rate

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