

### Rolando A. Merchán and John R. Slate

Department of Educational Leadership, Sam Houston State University, USA

\*Corresponding Author: Rolando A. Merchán, Department of Educational Leadership, Sam Houston State University, USA

### **ABSTRACT**

Analyzed in this study was the degree to which differences were present in the English proficiency levels of Texas Grade 3 English Language Learners as a function of the bilingual education program in which they were enrolled. The two indicators were the proficiency levels in reading and writing as determined by the Texas English Language Proficiency Assessment System (TELPAS) in the 2014-2015 school year. The bilingual program types that were examined were transitional bilingual early and late exit, and dual language immersion two- and one-way. Inferential statistical analyses revealed that English Language Learners enrolled in dual immersion/two-way programs had statistically significant higher percentages of attaining Advanced High proficiency levels on the TELPAS Reading test and higher percentages of Advanced proficiency levels on the TELPAS Writing test than their peers who were enrolled in other programs. Implications of the results are discussed, and suggestions for future research are made.

Keywords: Bilingual programs, English Language Learners, second language proficiency, TELPAS

## **INTRODUCTION**

Public schools in the United States have a linguistically diverse population. With 4.4 million students who are identified as English Language Learners in the American public schools (National Center for Education Statistics, 2015), it is no surprise that nearly three out of four schools are serving bilingual students (U.S. Department of Justice, n.d.). Of concern, however, are the achievement levels of English Language Learners. Noted in the report of the National Assessment of Educational Progress (National Center for Education Statistics, 2016) was the presence of a reading achievement gap of 37 points between Grade 4 students who were non-English Language Learners and English Language Learners in 2015. With respect to the state of interest for this article, only slightly more than one-half (52%) of English Language Learners in Texas met the reading standards for all grades tested in the State of Texas Assessment of Academic Readiness System during the 2015-2016 school year (Texas Education Agency, 2016). These gaps in performance for a growing population of English Language Learners underscore the need to study further the effectiveness of the different

bilingual education programs designed to serve students who speak languages different than English at home.

Bilingual education programs in the United States have been the response of the states to the legal mandates of servicing student with diverse linguistic backgrounds. Two U. S. Supreme Court decisions are considered landmarks regarding the education of English Language Learners (Collier & Thomas, 2009). The Lau vs Nichols (1974)ruling defined legal responsibilities for schools in serving English Language Learners by providing them with meaningful education. However, the decision did not define what constituted meaningful education. Castañeda vs Pickard (1981) in Texas, attempted to clarify the concept of meaningful education and formulated three criteria for evaluating the programs that serve English Language Learners: (a) programs need to be based on sound theory recognized by the experts in the field; (b) programs need to be effectively implemented; and, (c) programs need That is, what programs to be evaluated. effectively provide English Language Learners with access to the curriculum and the teaching of languages (i.e., English and the student's first language if the program is bilingual)?

The passage of the federal No Child Left Behind Act of 2001 increased the pressure on local schools to make efforts in closing the achievement gap between subgroups, including English Language Learners (Collier & Thomas, The Title III of the No Child Left 2009). Behind Act provides an important federal funding stimulus to states to imporove programs for English Language Learners. Additionally, schools and districts were required by this stimulus to report the percentage of English Learners who reach district Language benchmarks for English proficiency each year (Collier & Thomas, 2009; Cummins, 2016; Umansky & Reardon, 2014). In Texas, the Texas **English** Language Proficiency Assessment System (TELPAS) is assessment used to measure the English language proficiency of English Language Learners in Grades K to 12 in four language domains: listening, speaking, reading, and writing to meet the federal requirements established by Title III. The TELPAS assessments are performance-based holistically rated by teachers, except for the reading assessments for Grades 2 to 12, which are multiple-choice tests (Texas English Language Proficiency Assessment System, 2014).

Important recent research exists in which the effects of different instructional settings on English Language Learners' outcomes have been compared. Some researchers (Collier & Thomas, 2009; Jepsen, 2010; Martinez, Slate, & Martinez-Garcia, 2014) have focused on either English Language Learners' academic outcomes, or proficiency levels, or combination of both academic and proficiency levels. Other researchers (Proctor & Silverman, 2011; Slavin, Madden, Calderón, Chamberlain, & Hennessy, 2011) have worked on measuring English Language Learners' reading proficiency levels in two languages, always as a function of the instructional program in which English Language Learners were enrolled. The most pertinent research articles will now be summarized in this article.

Valentino and Reardon (2015) compared the academic trajectories of English Language Learners enrolled in four different types of instructional programs through the use of a longitudinal study with hierarchical linear models. They analyzed data from 13,750

English Learners enrolled in one school district in California between 2000 and 2010. Data consisted of the results of the standardized state assessments each English Language Learner took in English and mathematics each year from Grade 2 through Grade 8. Valentino and Reardon (2015) documented that the English language arts test scores for English Language Learners enrolled in transitional/bilingual programs increased at a statistically significant faster pace than the scores of English Language Learners who participated in English immersion programs. They reported that although English language arts scores in Grade 2 for English Language Learners in dual programs were well below the scores of their peers in English immersion programs, by Grade 6, English Language Learners who participated in dual immersion programs were at the same level as the state results and surpassed the results of English Language Learners enrolled in English immersion programs.

Based on the differences in short- and long-term performances by bilingual program participation, Valentino and Reardon (2015) suggested that programs serving English Language Learners should be evaluated using both types of outcomes. However, they acknowledged that the lack of analysis of first language literacy outcomes limited their interpretation of program effectiveness. Additionally, Valentino and Reardon (2014) recognized that their lack of knowledge regarding implementation both program differences and the quality of instruction in schools was another important limitation.

Another study in Texas on the academic outcomes of English Language Learners was conducted by Martinez, Slate, and Martinez-Garcia (2014). These researchers investigated the reading and mathematics performance of English Language Learners boys and girls as a function of their participation in either late-exit or in early-exit transitional bilingual programs. Martinez et al. (2014) analyzed archival data from the Texas Education Agency on English Language Learners enrolled in Grades 3, 4, 5, and 6 in bilingual transitional programs (i.e., early- and late-exit), during the 2008-2009, 2009-2010, and 2010-2011 school years. This study was not longitudinal because students whose data were analyzed differed from grade level to grade level. Results were not consistent among the reading and mathematics scores, the four grade levels studied, or the 3 school years

analyzed. Consequently, the authors concluded that their study results could not be used to support either transitional bilingual program as being more effective than its counterpart. Martinez et al. (2014) also suggested that further research into determining the efficacy of different models of bilingual programs was needed given the increasing numbers of English Language Learners in Texas, as well as in the United States.

With a focus on proficiency, Jepsen (2010) examined the relationship between the type of bilingual program received and the proficiency level achieved by almost 500,000 Spanish Speaking English Language Learners in California during 2003 and 2004. Jepsen (2010) used administrative data to compare the results of English Language Learners who received bilingual instruction with English Language Learners who received instruction in English immersion. Jepsen (2010) established that bilingual education programs had a large negative association with proficiency levels in listening and speaking for students in Grades 1 and 2, and a positive and, in some occasions, statistically significant relation for proficiency in listening and speaking, for students in Grades 3 to 5. Additionally, Jepsen (2010) determined that for reading proficiency. bilingual education programs had a positive association for English Language Learners in Grades 3 and 4, whereas the association between bilingual education and reading proficiency was not statistically different from zero for students in Grade 5.

Regarding the associations between writing proficiency levels and bilingual programs, Jepsen (2010) identified a modest negative association for Spanish speaking English Language Learners in Grades 3 and 4, and not statistically different from zero association for English Language Learners in Grade 5. Compared with programs of English Immersion, bilingual programs had a large negative association with listening/speaking proficiency levels for English Language Learners in Grades 2 to 4 and a small and not statistically significant association with **English** listening/speaking proficiency for English Language Learners in Grades 3 to 5. Jepsen (2010) also explored whether the bilingual programs had effect on English Language Learners' proficiency based on their previous proficiency levels. An important finding of this exploration was that English Language Learners who had strong listening and speaking English proficiency in the prior year and received bilingual education appeared to benefit the most for these programs relative to English Language Learners who were not enrolled in bilingual instruction.

Umansky and Reardon (2014) conducted a discrete-time survival analysis following nine cohorts of students for up to 12 years, between 2000 and 2012. They attempted to identify variation patterns in reclassification of English Language Learners between different bilingual programs and English immersion. They also analyzed the different barriers in reclassification that Hispanic English Language Learners encountered. For their study, Umansky and Reardon (2014) analyzed administrative data on nine cohorts (n = 5,423) of Hispanic English Language entering in kindergarten for a span of 12 years in the same school district in Umansky and Reardon (2014) California. estimated the median time to reclassification for Hispanic English Language Learners entering in kindergarten to be 8 years, with the biggest barrier being meeting all reclassification criteria in two consecutive years.

Another result described by Umansky and Reardon (2014) was the sustained academic and linguistic growth for participants enrolled in bilingual programs with higher outcomes by middle and high school than those obtained by English Language Learners enrolled in English immersion programs. This trend was in contrast with the higher levels of proficiency and academic performance attained by English Language Learners not enrolled in bilingual programs in the elementary grades. This result prompted Umansky and Reardon (2014) to highlight the importance of conducting additional longitudinal studies on the efficacy of different types of bilingual programs in terms of more realistic measures of English proficiency and academic performance.

Reagrding the research on English Langauge Learners' reading proficiency in two languages, Proctor and Silverman (2011) examined whether the biliteracy of 118 bilingual students was associated with stronger performance in morphological, semantic, and syntactic awareness in English. Participants were enrolled in second to fourth grade in Englishonly schools during the 2009-2010 school year. Proctor and Silverman (2011) established that the 43 students identified as biliterate

outperformed both the Spanish and the English mono-literate students on the literacy measures, although both groups, biliterate and English mono-literate students, displayed a similar level of proficiency in English.

However, Proctor and Silverman (2011), indicated that Spanish decoding, which was used as a base for determining biliteracy, "was confounded with English decoding" (p. 63). They also concluded that English decoding was a better predictor of performance on the morphological, semantic. and syntactic awareness in English. These results prompted the researchers to question whether the students identified as biliterate were (a) inherently better English readers, (b) relatively fluent in Spanish allowing them to apply some of their literacy skills to the English assessments, or (c) actually mono-literate in English but could transfer the correspondence letter-sound to Spanish Proctor and Silverman (2011) decoding. recognized that the last two possibilities confirmed the claims about the benefits of biliteracy development. Furthermore, the researchers highlighted the need for creating an assessment that evaluates the performance of bilingual students in both languages as a single outcome.

## **Statement of the Problem**

The academic and labor opportunities for English Language Learners "depend in great part on their ability to become proficient in English" (Jepsen, 2010, p. 201). As Proctor and Silverman (2011) posited, all students need to acquire sophisticated levels of English literacy to access the economic and social benefits linked to higher education. Among the benchmarks of second language literacy are the proficiency levels in reading and writing. Therefore, it is critical to determine, among the instructional models available to a growing number of English Language Learners in the American schools, the most effective type or types of bilingual programs.

### **Significance of the Study**

A considerable body of research exists in which differences in performance between English Language Learners depending on their instructional setting have been addressed. However, most of the focus of that research was on academic performance in English after a couple of years of receiving bilingual instruction. Although, some researchers, such

as Umansky and Reardon (2014), and Valentino and Reardon (2015), have analyzed differences in academic performance for English Language Learners who received bilingual instruction and those English Language Learners who went through English only instruction, fewer research studies have been published on English proficiency levels by bilingual program. Accordingly, findings of this study may have applications for policymakers and school administrators regarding program effectiveness to consider when serving English Language Learners.

### PURPOSE OF THE STUDY

The purpose of this study was to examine the degree to which differences were present among reading and writing proficiency levels for English Language Learners in Texas as a function of the type of bilingual program participation. The TELPAS Reading and the TELPAS Writing proficiency levels for Grade 3 English Language Learners enrolled in four different types of bilingual programs were analyzed. Determining which bilingual programs foster a better biliteracy trajectory is urgent under the current federal requirements of measuring the English development of English Language Learners in the school settings.

## **Research Questions**

The following research questions were addressed in this investigation: (a) What is the effect of the type of bilingual program on the reading proficiency of Grade 3 English Language Learners in Texas? and (b) What is the effect of the type of bilingual program on the writing proficiency of Grade 3 English Language Learners in Texas?

## **METHOD**

## **Research Design**

In this investigation, archival data were analyzed. Consequently, students were not randomly assigned to the different bilingual education program groups. Moreover, neither the independent variable nor the dependent variables were manipulated. These two features are typical of nonexperimental research. More specifically, this study constituted a causal-comparative research (Johnson & Christensen, 2014).

## **Participants**

Participants in this study were Grade 3 students

in Texas who were assessed by the TELPAS on their English language proficiency in the domains of reading and writing during the spring of the 2014-2015 school year. The total number of cases provided by the Texas Education Agency dataset was 106,632 students; however, some of the data were not relevant for the focus of this investigation and, therefore, were not analyzed. The number of Grade 3 students analyzed for proficiency levels differed by specific domain. In summary, of the 105.620 Grade 3 students who were rated in their English reading proficiency by the TELPAS, 61,671 cases were analyzed for the type of bilingual program enrollment; and of the 105,408 Grade 3 students who were rated in their English writing proficiency by the TELPAS, 61,720 cases were analyzed for the type of bilingual program in which they were enrolled.

## **Instrumentation and Procedures**

Data were obtained from the Texas Education Agency database through a Public Information Request form that was submitted by the instructor of an Applied Statistics I for Educational Leaders course. The data that were provided regarding English Language Learners had not yet been analyzed. Following receipt of the data from the Texas Education Agency, the data were imported into the Statistical Package for Social Sciences (SPSS) software program. After this data file was converted into a SPSS data file, labels were assigned to variables relevant this particular empirical to investigation. Because student data were reported to the Texas Education Agency directly from school districts, minimal errors in the data are assumed to be present. For technical information regarding score reliability and validity of the TELPAS testing instruments, readers are directed to the TELPAS website at http://tea.texas.gov/student.assessment/ell/telpas /.

## **Definition of Terms**

The focus of this study was type of bilingual program participation and English proficiency levels among Texas Grade 3 English Language Learners. The Texas Administrative Code defines English Language Learners as students whose first language is different from English and who are in the process of acquiring English (Texas Administrative Code, 2012, §89.1203(1)). The Texas English Language Proficiency Assessment System (TELPAS)

measures ELL's acquisition of English in alignment with the Texas English Language Proficiency Standards (ELPS) (Texas English Language Proficiency Assessment System, 2014).

The TELPAS Proficiency Level Standards, are defined by the three cut scores on each domain test that divide students into four English language proficiency levels: Beginning students have little or no ability to utilize English in a way for social or academic functional interactions (Texas English Language System, Proficiency Assessment 2014). Intermediate students have some ability to understand and utilize English in social interactions and in academic interactions that require simple language or routine contexts (Texas English Language **Proficiency** Assessment System, 2014). Advanced students possess the ability to participate in gradeappropriate instruction with second language acquisition supports (Texas English Language Proficiency Assessment System, Advanced High students have the ability to engage in grade-appropriate instruction with minimum second language acquisition supports (Texas English Language Proficiency Assessment System, 2014).

The Texas Administrative Code in its Chapter 89 contains the state rules concerning the plan for educating English Language Learners, and mandates that "the bilingual education program shall be implemented with consideration for each English language learner's unique readiness levels" (Texas Administrative Code, 2012, §89.1210 (b)). This law also defines the types of program school districts can choose from to serve their English Language Learners. For this study, the following types of program were included: transitional bilingual/early transitional bilingual/late exit, dual language immersion/two way, and dual language immersion/one way.

A transitional bilingual/early exit program is a program model that serves English Language Learners in both English and students' first language. Students enrolled in this program receive literacy and content instruction in their first language as well as oral and academic language development in English. In this kind of program, students transfer to English-only instruction not earlier than the end of Grade 1, or not earlier than 2 years or later than 5 years after the student enrolls in school if the student

enrolls during or after grade 1 (Texas Administrative Code, 2012, §89.1210 (d) (1)). In contrast, the transitional bilingual/late exit programs have as a goal to promote high levels of academic achievement and language proficiency in student's first language and in English. Additionally, in the late-exit model, students are not eligible to exit the program earlier than 6 years or later than 7 years (Texas Administrative Code, 2012, §89.1210 (d) (2)).

A dual language immersion/two-way differs from the transitional bilingual models in that it is a biliteracy program that integrates English Language Learners with students whose first language is English or are proficient in English. In this type of program, instruction is provided in both English and another language integrating language learning and content instruction. The exit for English Language Learners in a twoway program does not happen earlier than 6 years or later than 7 years after the student enrolls in school. The primary goals for dual immersion two-way programs are (a) the development of literacy and fluency in English and another language for all students; (b) the integration of English speakers and English Language Learners for instructional purposes: biliteracy, (c) the promotion of bilingualism, cross-cultural awareness, and high academic achievement (Texas Administrative Code, 2012, §89.1210 (d) (3)).

The dual immersion/one-way program provides instruction only to English Language Learners in English and students' first language. As in the two-way dual program, academic subjects are taught in English and the other language integrating language development and content instruction. The goals of this program are the same as the goals for the two-way program, with the exception that the group of students is made up of English Language Learners. For exit

purposes, students are not expected to exit for at least 6 years or later than 7 years after enrollment (Texas Administrative Code, 2012, §89.1210 (d) (4)).

#### RESULTS

To determine whether differences existed in the TELPAS proficiency levels of Grade 3 English Language Learners as a function of the bilingual program in which they were enrolled, Pearson chi-squares procedures were conducted. This procedure was selected as the preferred statistical procedure because (a) frequency data were present for all variables, (b) all variables were categorical, and (c) the large sample size provided for a per cell size of greater than five (Slate & Rojas-LeBouef, 2011). As a result, the criteria for a chi-square procedure were met.

For the first question regarding type of bilingual program participation and proficiency levels on the TELPAS Reading, the result was statistically significant,  $\chi$ 2(9) = 453.26, p < .001. The effect size for this difference was .05 (Cramer's V), a below small effect size (Cohen, 1988). As indicated in Table 1, English Language Learners who participated in a dual one-way program comprised the highest percentages of English Language Learners whose reading proficiency levels were beginning (21.80%) or Intermediate (28.60%), as well as the lowest percentages of English Language Learners whose reading proficiency levels were Advanced (26.50%) or Advanced High (23.10%). At the same time, English Language Learners who participated in a transitional bilingual/early-exit program had the smallest percentage of English Language Learners with a beginning reading proficiency level, 16.20%, and the highest percentage of English Language Learners with an Advanced reading proficiency level, 31.00%.

Table1. Frequencies and Percentages for TELPAS Reading Proficiency Levels by Bilingual Program Type

Proficiency		Transitiona	al Bilingu	al	Dual Immersion				
Level	Early Exit		Late Exit		Two-Way		One-Way		
	n	%	n	%	n	%	n	%	
Beginning	4,166	16.20	1,639	21.60	808	17.20	5,142	21.80	
Intermediate	6,719	26.10	1,997	26.30	1,224	26.00	6,753	28.60	
Advanced	8,000	31.00	2,071	27.30	1,326	28.20	6,251	26.50	
Advanced High	6,890	26.70	1,879	24.80	1,342	28.60	5,464	23.10	

For the second question regarding the extent to which the TELPAS Writing proficiency levels for Grade 3 English Language Learners differed by type of bilingual program participation, the result was statistically significant,  $\chi 2(12) = 1070.57$ , p < .001. The effect size for this difference was .08 (Cramer's V), a below small effect size (Cohen, 1988). As indicated in Table

2, English Language Learners enrolled in a transitional/ late-exit bilingual program showed the highest percentages of English Language Learners with beginning or Intermediate levels of proficiency, with 15.70% and 36.90% respectively; as well as the lowest percentages of English Language Learners with Advanced or Advanced High levels of writing proficiency, with 30.60% and 16.00% respectively. As

revealed in Table 2, English Language Learners participating in a transitional/ early exit demonstrated the highest percentages of English Language Learners students with Advanced High proficiency levels in writing (23.80%), as well as the lowest percentages of English Language Learners with a proficiency level of Beginner or Intermediate, with 9.30% and 30.60% respectively.

Table2. Frequencies and Percentages for TELPAS Writing Proficiency Levels by Bilingual Program Type

Proficiency level	Transitional bilingual			al	Dual immersion			
	Early exit		Late exit		Two-way		One-way	
	n	%	n	%	n	%	n	%
Beginning	2,396	9.30	1,191	15.70	555	11.80	3,557	15.10
Intermediate	7,889	30.60	2,801	36.90	1,649	35.10	8,698	36.80
Advanced	9,103	35.30	2,324	30.60	1,578	33.50	7,298	30.90
Advanced High	6,135	23,80	1,217	16.00	889	18.90	3,895	16.50

#### **DISCUSSION**

In this study, the degree to which differences were present in the reading and writing proficiency levels for Grade 3 English Language Learners in Texas by the specific type of bilingual education program in which they were enrolled was addressed. Specifically analyzed were the Grade 3 TELPAS reading and writing proficiency scores of English Language Learners who participated in the 2015 TELPAS assessments. Statistically significant differences were revealed between the types of bilingual program and the Grade 3 English Language Learners' TELPAS proficiency levels in reading and writing. Regarding the TELPAS Reading proficiency levels, the highest percentages of students whose reading ability levels could be considered the lowest (i.e., Beginner and Intermediate) were English Language Learners who participated in a dual immersion one-way Simultaneously, the lowest percentages of Grade 3 English Language Learners who received the highest TELPAS Reading proficiency levels (i.e., Advanced and Advanced High) also were students who participated in a dual immersion one-way model of bilingual education.

Inferences from these results were that dual immersion one-way programs are a less efficient model in promoting higher levels of reading proficiency for English Language Learners in Texas by Grade 3. These results are in agreement with the findings of previous researchers (Collier & Thomas, 2009; Valentino & Reardon, 2015). Among the plausible explanations for this situation is the emphasis

placed on first language literacy skills development and the lack of English speaking peers in the same classroom who can serve as language models for English Language Learners. These two features are common to dual immersion one-way programs (Valentino & Reardon, 2015).

Following this line of reasoning, per the results of this study, the most effective bilingual model for promoting reading proficiency in English would be the bilingual transitional/early-exit program. English Language Learners enrolled in this specific program had the lowest percentage of students at the Beginner level of proficiency in their TELPAS Reading, and the highest proportion of students who attained the Advanced proficiency level in TELPAS Reading. Although results were congruent with research conducted by Umansky and Reardon (2014), in this study the data analyzed were collected in only one year, whereas the study conducted by Umansky and Reardon (2014) contained data collected througout 9 years. The specific features that define transitional/earlyexit models of bilingual education may have a substantial role in the higher numbers of English Language Learners achieving the Advanced proficiency level and at the same time the smallest proportion of students obtaining the Beginner level. In transtional bilingual/earlyexit programs English Language Learners receive instruction mainly in English by Grade 2, which may accelerate the students' literacy skills in English.

Concerning writing proficiency in English for Grade 3 English Langauge Learners, results were that bilingual transitional/early-exit

programs were effective in promoting higher levels of proficiency in English Langauge Learners. The largest percentage of students with Advanced High proficiency level in TELPAS Writing participated in this type of bilingual program. Simultaneasly, the lowest percentage of students with the lowest level of TELPAS Writing proficiency (i.e., Beginner) were also English Language Learners who were enrolled in bilingual early-exit programs.

It is worth noting that the highest proficiency level in reading, Advanced High, was obtained in the largest proportion by English Language Learners who participated in a dual immersion two-way program. Moreover, dual immersion two-way particpants also constituted the highest percentages of Grade 3 English Language Learners who attained the Advanced TELPAS Writing proficiency level. These two findings are in agreement with the research literature about the advantages of this model of bilingual education (Collier & Thomas, 2009). Among the main cited reasons for this kind of results is the simultaneous development of literacy skills in the two languages present in the model, English and English Language Learners' first language. Another contributing characteristic of this model is the balanced represenation of native speakers of both the target language and English (Hamayan, Genesee, & Cloud, 2013).

English Language Learners in Texas, similar to English Language Learners in other states, are required to be assessed annually to determine their academic and proficiency levels. The goal of these assessments is to make the appropriate decisions regarding the needed implementation of educational and literacy processes (Barr, Eslami, & Joshi, 2012). The focus of a vast body of research has been on the benefits of bilingual education for English Language Learners, and as Collier and Thomas (2009) suggested after 30 years of research, the strongest predictor of the long term academic achievement of English Language Learners is the type of program provided in the elementary years. Therefore, determining the efficacy of the programs offered to English Language Learners in Texas and the country is a priority. Results from this investigation add to the body of literature in this field.

Not considered in this investigation was the academic achievement of English Language Learners by the specific bilingual program in which they were enrolled. As such, future

researchers should try to incorporate both measures to depict a more precise picture of the effects of different bilingual programs in determining the academic success of English Language Learners. Other possible topics worthy of further study are the effects of type of bilingual program participation in English proficiency for (a) boys and girls, (b) different economic status, (c) first language, and (c) composite TELPAS outcomes.

Lest readers overgeneralize results from this investigation, several caveats are in order. First, this study was limited to only Grade 3 English Language Learners in Texas. Readers are cautioned about the generalizability of findings because, although the sample size was large, results may not be generalizable to other states. The degree to which English Language Learners in Texas are similar to English Language Learners in other states is not known. Second, because the data collected for this study were obtained during the 2014-2015 school year, the findings may not represent other cohorts of English Language Learners. A longitudinal or multi-vear study might provide generalizable results that school leaders and policymakers could use to ensure the success of English Language Learners in the United States. Until such time as the results from this empirical investigation are replicated, readers are urged to be cautious in any generalizations they might make from the findings of this study.

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