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# STAAR Performance of Emergent Bilingual Students from 4th to 6th Grade

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**Abstract**

Emergent Bilingual (EB) students comprise over one-fifth of Texas' K-12 population and far higher proportions in South Texas, where Spanish is the predominant L1. Because STAAR Reading Language Arts (RLA) assessments are language-intensive and shift to English-only by grade 6, results can confound language proficiency with content mastery, obscuring true achievement and shaping accountability decisions for students and schools. Establishing whether assessment language predicts or moderates EB performance during upper-elementary transitions is therefore essential for equitable policy and placement. The study examined the academic performance of Spanish-speaking emergent bilingual students in a South Texas district as they transitioned from taking the STAAR Reading Language Arts (RLA) exam in Spanish to English from grades 4 to 6. The shift to mandated English-only testing by 6th grade may misrepresent students' academic abilities when English proficiency is still developing. The study aimed to determine whether the language of STAAR assessment influenced academic outcomes across transitional years. Guided by Cummins' developmental interdependence theory, which posits that L1 proficiency supports L2 academic success, the study evaluated whether test language predicted or moderated performance over time. A quantitative, causal-comparative design was used. Archival STAAR RLA data from 2022–2024 were analyzed using ANCOVA and moderated multiple regression. A purposive sample of 150 students across 4th–6th grades was selected based on language background and test history. Results showed no significant differences in 4th- or 5th-grade STAAR scores based on test language. However, test language significantly moderated performance in two models. Uniform English testing in 6th grade limited further analysis. These findings support the theoretical framework and highlight the

 

need for flexible, readiness-based assessment policies to improve equity and outcomes for emergent bilingual students.

**Keywords**: Emergent Bilinguals, STAAR Test, Academic Transition, & Achievement

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## 1. Background

In Texas, high-stakes standardized tests have long played a critical role in shaping educational policy and practice. As the population of emergent bilingual students continues to grow, equitable assessment practices are needed to ensure that this population of students receive the support needed to succeed academically and experience achievement on the State of Texas Assessment of Academic Readiness (STAAR) test, the state-mandated standardized test. In order to foster the academic success of emergent bilinguals and enhance their performance on the Texas STAAR test, it is imperative to implement equitable assessment practices that acknowledge and support their unique linguistic backgrounds (Everman, 2020). This matters because assessments that overlook students' language development can produce misleading results, masking their true academic potential and limiting access to appropriate support.

The State of Texas Assessments of Academic Readiness (STAAR) exams are a key component of Texas's educational assessment system, serving as a measure of student achievement and a significant part of school accountability. Among these exams, the Reading Language Arts (RLA) STAAR Exam plays a critical role, as it assesses students' proficiency in reading comprehension, writing, and language skills areas that present unique challenges for emergent bilingual (EB) students due to the language demands embedded within the test. Given the language-intensive nature of the RLA exam, understanding the population most affected by these challenges is essential. Emergent bilingual (EB) students, also known as English learners (ELs), represent the rapidly growing demographic in the United States and Texas, who face unique challenges and opportunities within this testing framework (Pacheco et al., 2021). In Texas, approximately 90% of emergent bilingual students are Spanish-speaking (Texas Education Agency [TEA], 2023). This linguistic majority makes Spanish the most statistically significant and instructionally relevant subgroup for examining assessment patterns and equity in standardized testing outcomes. In the United States, the number of emergent bilingual students rose from 3.5 million in 2000 to over 5 million in 2020, while in Texas alone, emergent bilinguals make up over 20% of the total student population (TEA, 2023). This percentage is even higher in South Texas, a region where school districts serve a disproportionately high number of Spanish-speaking students and face additional challenges tied to socioeconomic disparities and resource availability.

Investigating the performance of emergent bilinguals on the STAAR exams is needed for several reasons. First, the test data provides data-driven insights into this student group's academic challenges and achievements, which can inform strategies for educational support. Second, the test data contributes to discussions on educational assessment practices by considering students' linguistic diversity (Bowker, 2021). Lastly, it allows educators and policymakers to identify gaps in instructional methods and curriculum design, ensuring that interventions are tailored to the unique needs of emergent bilinguals (Bailey & Sowden, 2021).

The problem centers on the mandatory transition that emergent bilingual students face when moving from the option of taking the STAAR exams in Spanish to being required to take them in English, starting in 6$^{th}$ grade. The transition of the language of the exam is critical because it marks the point at which emergent bilingual students lose access to assessments in their native language, despite many still acquiring academic English proficiency necessary for success (Dong, 2023; Menken, 2010).

The consequences of not addressing this issue are significant. Emergent bilingual students who face difficulties during this transition may hinder their academic progress, leading to lower test scores and reduced chances of long-term educational success (Barbera et al., 2020). Failure to support these students effectively exacerbates educational inequities and undermines efforts to provide inclusive assessment practices. This lack of appropriate interventions can also contribute to broader issues, such as lower graduation rates and fewer opportunities for post-secondary success among bilingual populations (Barbera et al., 2020).

The purpose of this quantitative, non-experimental, causal-comparative study was to examine whether the language of STAAR Reading Language Arts (RLA) test administration in 4th and 5th grade predicted subsequent academic performance in 5th and 6th grade among Spanish-speaking emergent bilingual students in a South Texas school district. By investigating the impact of assessment language across multiple grade levels, this study aimed to provide data-driven insights that could inform more equitable assessment practices and instructional strategies for supporting emergent bilingual learners.

 

## 2. Literature Review

### *2.1 Emergent Bilingual Students*

Emergent bilingual students are actively acquiring proficiency in a second language, typically English, while continuing to develop their first language (L1) (Garcia & Kleifgen, 2020). This term highlights the linguistic potential of these students, contrasting with deficit-oriented labels such as "English Language Learners" (ELLs), which focus solely on their need to acquire English (Menken, 2013). These students often navigate unique challenges, including learning academic content while developing language skills in English-dominant school environments (Pacheco et al., 2021). Bach (2020) suggests that fostering L1 development alongside English acquisition enhances cognitive and academic outcomes, as bilingualism supports critical thinking and cultural competence. Educational strategies tailored to emergent bilinguals, such as dual-language programs and culturally responsive teaching, are essential for creating equitable and supportive learning environments (González-Howard & Suárez, 2021). By recognizing and leveraging students' bilingual abilities, schools can simultaneously promote academic success and linguistic growth (Sah & Uysal, 2022). The Developmental Interdependence Theory, proposed by Cummins, underscores the interconnectedness of a student's first language (L1) and their second language (L2) development. This theory posits that a strong foundation in L1 facilitates the transfer of skills, such as literacy and critical thinking, to L2, ultimately enhancing academic achievement (Lurie et al., 2021). Ozer and Badem (2022) stated that bilingual students with high proficiency in their native language tend to excel academically compared to peers with weaker L1 skills. This framework has informed the design of dual-language and bilingual programs, which leverage L1 strengths to support comprehensive language development (Peng & Kievit, 2020).

### 2.2 *Emergent Bilingual Language Development*

The language development process for emergent bilingual students, also known as English Language Learners (ELLs), involves acquiring proficiency in both their native language (L1) and English (L2). This dual-language acquisition process is complex and multifaceted, influenced by cognitive, social, and educational factors (Erdemir & Brutt-Griffler, 2022). Understanding this process is essential for educators and policymakers to provide adequate support and enhance the academic success of emergent bilingual students.

Instructional approaches integrating language and content learning, such as Sheltered Instruction and Dual Language Programs, are practical. Sheltered Instruction strategies, such as scaffolding, visual aids, and cooperative learning, help students access the curriculum while developing their English language skills (Bernstein et al., 2021). Dual Language Programs, which provide instruction in English and the students' native language, support bilingualism and biliteracy, leading to higher academic achievement and cognitive benefits.

The language development process for emergent bilingual students is complex and influenced by cognitive, social, and educational factors. Effective support strategies include maintaining L1 proficiency, providing rich language experiences, and implementing instructional approaches integrating language and content learning (Guise et al., 2020).

### 2.3 *Addressing Language Barriers in Assessment*

Language barriers in standardized assessments pose significant challenges for emergent bilingual students, often resulting in scores that do not accurately reflect their academic abilities. Gerchow et al., (2021) suggests that providing accommodations, such as extended time, bilingual glossaries, or translated test instructions, can mitigate these challenges and allow students to demonstrate their content knowledge more effectively. Dual-language assessments, which evaluate students in both their first language (L1) and second language (L2), have been shown to produce more accurate measures of their academic progress (Coombe et al., 2020). Furthermore, alternative assessment methods, such as portfolios and performance-based tasks, provide a more holistic understanding of students' capabilities without over-reliance on language-heavy testing formats (Dovchin, 2020). Teachers play a critical role in preparing students for assessments by teaching test-taking strategies and offering practice tests tailored to their linguistic needs (Yan et al., 2024). Addressing language barriers in assessment is essential for ensuring equity and supporting the academic success of emergent bilingual students (Kasneci et al., 2023).

#### 2.3.1 Accommodations Support Bilingual Learners in Standardized Testing

Providing appropriate accommodations ensures that standardized tests accurately measure the abilities of bilingual learners. Accommodations such as bilingual glossaries, extended testing time, and the option to take assessments in their first language (L1) can reduce the linguistic burden and allow students to focus on demonstrating their content knowledge (Rios et al., 2020). Additionally, offering test instructions and questions in simplified English helps to ensure that language barriers do not obscure the intended meaning (Huenergarde et al., 2023). The effectiveness of linguistic scaffolds, such as visual aids and graphic organizers, in helping

 

bilingual learners understand test content without compromising rigor (Abedi et al., 2005). Professional development for educators is also essential in equipping teachers to implement these accommodations effectively and advocate for the needs of bilingual students (Taylor & Banerjee, 2023). By addressing these language barriers, accommodation ensures that standardized tests uphold principles of equity and inclusivity (Bach, 2020).

2.4 *Academic Performance of Emergent Bilingual Students*

The academic performance of emergent bilingual students is often measured through standardized testing, which presents unique challenges due to language barriers. Heineke and Giatsou (2020) indicates that emergent bilingual students frequently score lower on English-only standardized assessments, not because of a lack of content knowledge but due to their developing English proficiency. This discrepancy highlights the need for assessments that account for students' linguistic abilities, such as tests in English and their native language (Emerick, 2022). Studies have shown that bilingual students who take standardized tests in their first language (L1) demonstrate higher academic performance than those required to take tests exclusively in English (Bach, 2020). Additionally, emergent bilingual students benefit from alternative assessment approaches, such as portfolio assessments and performance-based tasks, which accurately reflect their academic capabilities (Swanson et al., 2021). These findings emphasize the importance of revising assessment practices to ensure equity and validity for emergent bilingual learners (Escamilla et al., 2022). Recent research continues to affirm the connection between instructional language models and standardized assessment outcomes for bilingual learners. For instance, Esquierdo and Almaguer (2024) examined over 1,100 Latinx students participating in a one-way Dual Language Education (DLE) program in Texas and found a consistent positive trajectory in STAAR reading scores across elementary grades. Their findings demonstrate that bilingual program structure can significantly influence assessment performance trends, further validating the need to consider programmatic and linguistic variables when interpreting STAAR results.

*2.5 Standardized Testing and Assessment Outcomes*

de Valenzuela et al. (2022) stated that emergent bilingual students have a complex academic performance landscape marked by challenges and successes. Emergent bilingual students face unique obstacles that can impact their academic outcomes, including language barriers, cultural differences, and varying levels of support within the educational system (Chen et al., 2021). These factors often result in lower academic achievement compared to their native English-speaking peers, particularly in standardized testing environments. Effective instructional strategies play a crucial role in supporting the academic success of emergent bilingual students (Gayed et al., 2022). Sheltered instruction, which integrates language development with content instruction, has positively enhanced students' comprehension and engagement (Desjardins, 2020). Programs such as the Sheltered Instruction Observation Protocol (SIOP) provide teachers with tools to make content more accessible while simultaneously developing students' English language skills (Shi et al., 2020). These programs include strategies such as scaffolding, visual aids, and cooperative learning, which help students access and engage with the curriculum.

The academic performance of emergent bilingual students is influenced by many factors, including language barriers, cultural differences, instructional strategies, and support systems (Morita-Mullaney et al., 2020). While these students face significant challenges, their potential for academic success is substantial when provided with the appropriate resources and support. By leveraging their linguistic strengths and implementing effective educational practices, schools can create an environment where emergent bilingual students thrive academically and develop the skills needed for future success (Kumar et al., 2020). The continued focus on research, policy development, and educational practice is essential to address emergent bilingual students' unique needs and promote equitable educational opportunities for all learners (Ortiz et al., 2022).

2.5.1 Disparities Between Spanish and English Test Administrations

One significant challenge for emergent bilingual students is the language barrier, which affects their ability to comprehend and perform well on assessments designed for native English speakers (Soland & Sandilos, 2021). Language barriers create an additional layer of cognitive load, as students must simultaneously process language comprehension and content mastery, often leading to lower performance on standardized tests that do not account for their unique language needs. García and Kleifgen (2020) highlighted that when assessments are not tailored to accommodate diverse linguistic backgrounds, emergent bilingual students may struggle with accurately demonstrating their knowledge and skills, underscoring the need for equitable assessment practices.

These findings underscore the need for comprehensive support systems to address the unique needs of emergent bilingual students, promoting their academic and linguistic success.

## 3. Methodology

This study employed a non-experimental, casual-comparative quantitative research design to investigate the

 

potential impact of the language of the 4th-grade STAAR RLA test (independent variable) on the students‘ 5th-grade STARR RLA performance (dependent variable) and the 5th-grade STAAR RLA test (independent variable) on the students' 6th-grade STAAR RLA performance (dependent variable).

Data were sourced from existing STAAR test records in Eduphoria and the Data Management for Assessment & Curriculum (DMAC) databases. The analysis of the data included descriptive statistics and independent samples t-tests to assess performance shifts and compare language groups.

3.1 *Sample and Sampling Procedures*

Approximately 150 Spanish-speaking emergent bilingual students across 4th, 5th, and 6th grades were included in the sample, representing the total number of students who met the study's inclusion criteria during the 2022–2023 and 2023–2024 academic years. The sample for this study was selected using a nonrandom, purposive sampling method. Inclusion criteria required that students (a) were classified as emergent bilingual, (b) were enrolled in the district during both the 2022–2023 and 2023–2024 academic years, and (c) had valid STAAR Reading Language Arts scores in both Spanish and English across consecutive grade levels. Participants were identified through pre-existing, de-identified STAAR performance data obtained from the school district's Eduphoria and Data Management for Assessment and Curriculum (DMAC) systems.

## 4. Results

Table 1 presents descriptive statistics of continuous study variables for the students in the 4th to 5th grade and 5th to 6th grade student analysis. Independent samples t-test analysis of 4th grade STAAR exam scores compared students completing the exam in Spanish or English. Bivariate analysis indicated that mean 4th ($t(31.70) =. 59$, $p = .56$) or 5th ($t(36) = -.62$, $p = .56$) grade STAAR exam scores did not differ for students completing the exam in Spanish or English at a statistically significant level,

Table 2 presents an ANCOVA analysis examining the association between language spoken and 4th grade STAAR exam scores while covarying 3rd grade STAAR exam scores. Analysis indicated that 4th grade STAAR exam scores were not significantly related to language spoken while covarying 3rdh grade STAAR exam scores a statistically significant level, $F(1. 39) = .67$, $p = .42$.

Table 3 presents an ANCOVA analysis examining the association between language spoken and 5th -grade STAAR exam scores while covarying 4th -grade STAAR exam scores. Analysis indicated that 5th Grade STAAR exam scores were not significantly related to language spoken while covarying 4th Grade STAAR exam scores a statistically significant level, $F(1, 35) = 3.66$, $p = .06$. However, it should be noted that this relationship did approach statistical significance as the significance level was below .10 ($p = .06$).

Table 4 presents a multiple linear regression analysis examining the moderating effect of the language in which the STAAR exam was taken on the relationship between 3rd grade and 4th grade STAAR exam scores. Analysis indicated that the overall model was statistically significant, $F(1, 41) = 27.10$, $p < .001$, and explained 69% ($R^2 = .69$, Adjusted $R^2 = .66$) of the variance in the dependent variable. Analysis also indicated that the interaction term between Language x 3rd grade STAAR Scores was statistically significant, $B = .69$, $SE = .26$, $\beta = 1.14$, $p < .01$.

Figure 1 presents a graph depicting the moderating effect of the language in which the STAAR exam was taken on the relationship between 3rd -grade and 4th-grade STAAR exam scores. Figure 1 suggests that in the presence of low 3rd grade exam scores the mean 4th grade STAAR exam scores are similar with the exams taken in English higher by 11.1% relative to the exams taken in Spanish. However, in the presence of high 3rd grade exam scores, the mean 4th grade STAAR exam score taken in Spanish was approximately 15% (14.9%) higher than the STAAR exams taken in English.

Table 5 presents a multiple linear regression analysis examining the moderating effect of the language the STAAR exam was taken on the relationship between 4th grade and 5th grade STAAR exam scores. Analysis indicated that the overall model was statistically significant, $F(1, 37) = 20.06$, $p < .001$, and explained 64% ($R^2 = .64$, Adjusted $R^2 = .61$) of the variance in the dependent variable. Analysis also indicated that the interaction term between Language x 4th grade STAAR Scores was not statistically significant, $B = -.15$, $SE = .33$, $\beta = -.29$, $p = .65$.

ANCOVA results indicated no significant differences in performance between English and Spanish test-takers in 4th and 5th grade. However, multiple linear regression analyses revealed significant moderating effects of test language on certain grade-level performance relationships. Additional analyses, particularly those involving 6th-grade comparisons, could not be conducted due to a lack of variation in test language.

 

Table 1. Descriptives of study Vvriables: 4th to 5th grade ($n$ =52) and 5th to 6th grade students ($n$ = 41) analysis

| Variable | *M* (*SD*) | Minimum/Maximum | Skew (*SE*) | Kurtosis (*SE*) |
|---|---|---|---|---|
| STAAR 4th grade scale | 1,349.50 (137.14) | 1,124-1,750 | .67 (.38) | .49 (.75) |
| STAAR 4th grade percent | 40.13 (19.08) | 13.46-90.38 | .68 (.38) | -.17 (.75) |
| STAAR 5th grade scale | 1,463.29 (147.84) | 1,135-1,714 | -.11 (.38) | -.62 (.75) |
| STAAR 5th grade percent | 46.31 (20.02) | 11.54-80.77 | .12 (.38) | -.94 (.75) |
| STAAR 5th grade scale | 1,425.37 (158.35) | 1,157-1,763 | .26 (.37) | -.64 (.72) |
| STAAR 5th grade percent | 44.51 (20.85) | 13.46-86.54 | .35 (.37) | -.86 (.72) |
| STAAR 6th grade scale | 1,483.15 (117.21) | 1,339-1,819 | 1.34 (.37) | 1.49 (.72) |
| STAAR 6th grade percent | 29.88 (16.25) | 14.29-80.36 | 1.86 (.37) | 3.25 (.72) |

Table 2. ANCOVA analysis examining the association between language spoken and 4th-grade STAAR scores while covarying 3rd-grade STAAR scores

| Variable | Sum of squares | *df* | Mean square | *F* | *p* | Partial eta squared |
|---|---|---|---|---|---|---|
| Intercept | 375.39 | 1 | 375.39 | 2.80 | .10 | .07 |
| 3rd grade STAAR scores | 8,791.64 | 1 | 8,791.64 | 65.51 | .001 | .63 |
| Language spoken | 89.81 | 1 | 89.81 | .67 | .42 | .02 |
| Error | 5,233.66 | 39 | 134.20 | | | |

Table 3. ANCOVA Analysis examining the Association Between Language Spoken and 5th Grade STAAR Exam scores while covarying 4th Grade STAAR Exam scores

| Variable | Sum of squares | *df* | Mean square | *F* | *p* | Partial eta squared |
|---|---|---|---|---|---|---|
| Intercept | 522.44 | 1 | 522.44 | 3.39 | .07 | .09 |
| 4th grade STAAR scores | 9,287.63 | 1 | 9,287.63 | 60.33 | .001 | .63 |
| Language spoken | 563.39 | 1 | 563.39 | 3.66 | .06 | .10 |
| Error | 5,388.08 | 35 | 153.95 | | | |

 

Table 4. Linear regression qnalysis examining the moderating effect of language on the relationship between 3rd grade and 4th grade STAAR exam scores ($n$ = 42)

| Variable | *B*(*SE*) | β | *p* |
|---|---|---|---|
| Language (L) | -27.92 (10.01) | -.69 | .008 |
| 3rd grade STAAR scores (TGSS) | -.18 (.46) | -.14 | .70 |
| L X TGSS | .69 (.26) | 1.14 | .01 |

*Note.* $F(1, 41) = 27.80$, $p < .001$. $R^2 = .69$, Adjusted $R^2 = .66$.

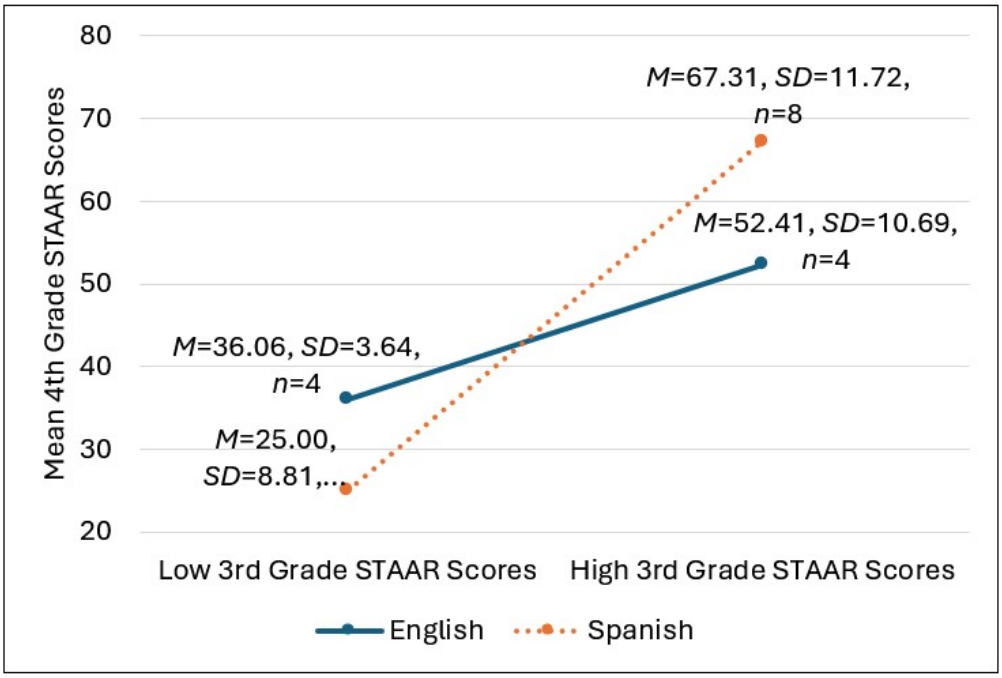


Figure 1. Effect of assessment language on 4th grade STAAR scores by 3rd grade performance level

Table 5. Linear regression analysis examining the moderating effect of language on the relationship between 4th grade and 5th grade STAAR scores ($n$ = 38)

| Variable | *B* (*SE*) | *β* | *p* |
|---|---|---|---|
| Language (L) | 16.71 (15.63) | .33 | .29 |
| 4th grade STAAR scores (FGSS) | 1.12 (.64) | 1.07 | .09 |
| L X FGSS | -.15 (.33) | -.29 | .65 |

*Note.* $F(1, 37) = 20.06$, $p < .001$. $R^2 = .64$, Adjusted $R^2 = .61$.

## 5. Discussion and Conclusion

This quantitative, causal comparative, nonexperimental study was conducted to examine the academic performance of Spanish-speaking emergent bilingual students in a South Texas school district as they transitioned from taking the State of Texas Assessments of Academic Readiness (STAAR) Reading Language

 

Arts (RLA) exam in Spanish to taking it in English. The research focused on 4th-, 5th-, and 6th-grade students, investigating how the language of STAAR test administration impacted subsequent academic performance. Prior research has indicated that emergent bilingual students often face academic disadvantages when assessed in a language in which they are not yet fully proficient, which may obscure their actual content knowledge and contribute to inequitable outcomes (Dong, 2023; Gándara & Contreras, 2009). The study also explored whether prior academic performance in Spanish predicted future performance in English.

The ANCOVA results revealed that for both the 4th- and 5th-grade cohorts, there were statistically significant differences in STAAR RLA performance between students who took the exam in English and those who took it in Spanish, even after controlling for the prior year's Spanish-only STAAR scores. In the regression analyses, results showed that the language of the 4th-grade STAAR exam significantly predicted 5th-grade performance, even when controlling for 3rd-grade scores. Similarly, the language of the 5th-grade exam significantly predicted 6th-grade STAAR performance while controlling for 4th-grade results.

These findings suggest that for Spanish-speaking emergent bilingual students, the language in which they take the STAAR exam has a meaningful influence on their future academic performance. The results highlighted the impact of early language assessment and underscored the importance of providing appropriate support during transitional years. These findings align with Cummins' Developmental Interdependence Theory, which posits that proficiency in a student's first language (L1) supports academic success in a second language (L2). Prior studies by Dong (2023) and Wilden and Porsch (2020) have also emphasized the need for targeted language support as students transition from native-language assessments to English-only testing environments. This study contributes important data to the broader discussion on language policy in standardized assessments and offers evidence for the need to consider linguistic factors in designing equitable educational strategies.

The findings offer both confirmations and complexities in relation to existing research on bilingual education and language assessment. Studies by Dong (2023), Gándara and Contreras (2009), and Wilden and Porsch (2020) have emphasized that language of instruction and testing significantly impact academic outcomes for emergent bilingual students. These results also partially aligned with Cummins' Developmental Interdependence Theory, which holds that academic development in a second language (L2) is supported by a strong foundation in the first language (L1) (Cummins, 2000). This study further suggests that while prior academic performance is a strong predictor, the language of the assessment may not be as influential at this grade level. This partially confirmed previous research emphasizing the foundational role of early language development in academic achievement (Dong, 2023; Gándara & Contreras, 2009), and it aligned with Cummins' Developmental Interdependence Theory, which posits that strong L1 skills support academic success in L2 contexts (Cummins, 2000). However, the results also diverged from claims by Menken (2010) and others that test language alone strongly determines the academic outcomes of emergent bilinguals. These findings contribute to a more nuanced understanding that while assessment language matters, its influence may vary depending on students' existing academic history and the grade level at which testing occurs.

These findings extend current knowledge by suggesting that test language might play a more significant role in upper elementary grades, potentially due to increased linguistic complexity in academic content. Prior research has noted that as students progress into upper grades, academic demands increase substantially in both vocabulary and syntax, which may heighten the impact of assessment language on performance (Cummins, 2000; Menken, 2010). These results are also consistent with findings by Dong (2023), who emphasized that emergent bilingual students often require more language scaffolding during the upper elementary years to access complex academic material. While not statistically conclusive, the trend observed here warrants continued investigation into how language of assessment interacts with academic expectations in later elementary grades. Further, these findings reinforce Cummins' (2000) Developmental Interdependence Theory, which argues that strong first-language (L1) proficiency provides a cognitive and academic foundation for acquiring skills in a second language (L2). These results also align with research by Wilden and Porsch (2020), who found that academic instruction and assessment in a student's native language support deeper comprehension and performance. However, for students with lower prior achievement, early exposure to English assessments may offer practical benefits by promoting early L2 adaptation, a dynamic discussed in studies by Dong (2023) and Menken (2010). The interaction effect observed here highlights the importance of differentiated assessment policies that account for both prior achievement and language proficiency profiles. Interestingly, as students transitioned from 4th to 5th grade language did not significantly moderate the relationship between 4th- and 5th-grade scores. This suggests that once students transition into English testing, the language of assessment may no longer serve as a primary moderating factor. Instead, other influences, such as instructional quality, classroom engagement, or student confidence, may have a more significant impact on academic outcomes (Hakuta, 2011; Menken, 2010). This finding may also reflect the stabilizing effect of prior exposure to English assessments, as some students may have developed sufficient proficiency to access content regardless of the test language (Cummins, 2000). Research by Dong (2023) and Wilden and Porsch (2020) further supports the idea that

 

academic language readiness, instructional alignment, and educator support become increasingly critical once students shift away from bilingual assessment models. Although the moderating effect of test language was not observed in this case, the result does not negate the impact of language overall but rather signals a shift in which other contextual variables become more prominent.

Taken together, the results suggest that while prior academic achievement is a consistent predictor of future performance, the language of assessment exhibits nuanced, grade-specific effects. This aligns with Cummins' (2000) Developmental Interdependence Theory, which holds that proficiency in a student's first language (L1) plays a vital role in shaping success in a second language (L2), especially in the early grades. However, these findings apply specifically to Spanish-speaking emergent bilingual students in South Texas and may not be generalizable to all bilingual populations. The results contribute to the broader literature by identifying critical transition points in bilingual assessment and reinforcing the need for more flexible testing policies that reflect students' readiness and proficiency levels (Dong, 2023; Gándara & Contreras, 2009; Menken, 2010). For example, the stronger English performance among lower-achieving students in 4th grade indicates that language advantage is not absolute, but is mediated by factors such as instructional alignment, student confidence, teacher expectations, and socio-emotional readiness (Hakuta, 2011; Wilden & Porsch, 2020). These patterns suggest that student success in bilingual contexts cannot be solely attributed to the language of assessment, but must be understood within a broader constellation of academic and environmental influences.

The primary implication drawn from this study is that test language matters in specific, context-sensitive ways, particularly for students transitioning out of bilingual education programs. Evidence from this analysis highlights that academic growth may be hindered when assessment language changes before students have reached adequate L2 proficiency. These findings fill a quantitative gap in existing bilingual education research and contribute evidence-based support for refining STAAR testing policies to accommodate students' linguistic readiness rather than grade-based mandates.

Ultimately, the results provide actionable insights for educators, campus leaders, and policymakers. Findings suggest the need for data-informed, differentiated assessment practices, especially for Spanish-speaking emergent bilingual students. School districts and state agencies should consider designing flexible language assessment pathways and extending L1 instructional support through transitional years. Aligning language development timelines with academic expectations could improve both equity and outcomes for bilingual learners. To extend these findings, future studies should follow EB cohorts beyond grade 6 to model longitudinal growth across middle school and examine subject-specific effects (RLA vs. mathematics) under varying language-of-assessment conditions. Multi-district analyses with larger samples and item-level data would allow for more precise estimates of language–task interactions and fairness. Finally, integrating instructional and program fidelity data could clarify which leadership and policy levers most effectively align language development timelines with accountability expectations.

## References

Abedi, J., Courtney, M., Mirocha, J., Leon, S., & Goldberg, J. (2005). Language Accommodations for English Language Learners in Large-Scale Assessments: Bilingual Dictionaries and Linguistic Modification. CSE Report 666. *National Center for Research on Evaluation, Standards, and Student Testing (CRESST)*.

Bach, A. J. (2020). High-stakes, standardized testing and emergent bilingual students in Texas: An overview of study findings and a call for action. Texas Journal of Literacy Education, 8(1), 18-37. https://www.talejournal.com/index.php/TJLE/article/view/42

Bailey, L., & Sowden, H. (2021). Reflective accounts of teaching literacy to pupils with English as an additional language (EAL) in primary education. English in education, 55(4), 286-300.

Barbera, S. A., Berkshire, S. D., Boronat, C. B., & Kennedy, M. H. (2020). Review of undergraduate student retention and graduation since 2010: Patterns, predictions, and recommendations for 2020. Journal of College Student Retention: Research, Theory & Practice, 22(2), 227-25. https://doi.org/10.1177/1521025117738233

Bernstein, K. A., Kilinc, S., Deeg, M. T., Marley, S. C., Farrand, K. M., & Kelley, M. F. (2021). Language ideologies of Arizona preschool teachers implementing dual language teaching for the first time: Pro-multilingual beliefs and practical concerns. International Journal of Bilingual Education and Bilingualism. https://doi.org/10.1080/13670050.2018.1476456

Bowker, L. (2021). Promoting linguistic diversity and inclusion: Incorporating machine translation literacy into information literacy instruction for undergraduate students. The International Journal of Information, Diversity, & Inclusion (IJIDI), 5(3). https://doi.org/10.33137/ijidi.v5i3.36159.

Chen, C. H., Hung, H. T., & Yeh, H. C. (2021). Virtual reality in problem-based learning contexts: Effects on the problem-solving performance, vocabulary acquisition and motivation of English language learners. Journal of

 

Computer Assisted Learning, 37(3), 851-860. https://doi.org/10.1111/jcal.12528

Coombe, C., Vafadar, H., & Mohebbi, H. (2020). Language assessment literacy: What do we need to learn, unlearn, and relearn? Language Testing in Asia, 10(1), 3. https://doi.org/10.1186/s40468-020-00101-6

Cummins, J. (2000). Academic language learning, transformative pedagogy, and information technology: Towards a critical balance. Tesol Quarterly, 34(3), 537-548. https://doi.org/10.2307/3587742

Desjardins, A. (2020). Effective sheltered content instruction for English Language Learners. BU Journal of Graduate Studies in Education, 12(2), 15-18. https://files.eric.ed.gov/fulltext/EJ1263051.pdf

de Valenzuela, J. S., Pacheco, R., & Shenoy, S. (2022). Current practices and challenges in language proficiency assessment for English learners with complex support needs. Research and Practice for Persons with Severe Disabilities, 47(1), 6-21. https://doi.org/10.1177/15407969221075848

Dong, Y. (2023). The unique bilingual profile of translators and interpreters. In The Routledge handbook of translation, interpreting and bilingualism (pp. 11-26). https://doi.org/10.4324/9781003109020-4

Dovchin, S. (2020). The psychological damages of linguistic racism and international students in Australia. International Journal of Bilingual Education and Bilingualism, 23(7), 804-818. https://doi.org/10.1080/13670050.2020.1759504

Emerick, M. R. (2022). Diversity ideology and school leadership: Obscuring inequities for emergent bilingual students in career and technical education. Educational Administration Quarterly, 58(2), 223-257. https://doi.org/10.1177/0013161x211052510

Erdemir, E., & Brutt-Griffler, J. (2022). Vocabulary development through peer interactions in early childhood: A case study of an emergent bilingual child in preschool. International Journal of Bilingual Education and Bilingualism, 25(3), 834-865. https://doi.org/10.1080/13670050.2020.1722058

Escamilla, K., Olsen, L., & Slavick, J. (2022). Toward comprehensive effective literacy policy and instruction for English learner/emergent bilingual students. National Committee for Effective Literacy. https://multilingualliteracy.org/wp-content/uploads/2022/04/21018-NCEL-Effective-Literacy-White-Paper-FINAL_v2.0.pdf

Esquierdo, J. J., & Almaguer, I. (2024). Examining one-way dual language elementary Latinx bilingual learners' trajectory on a state standardized reading assessment. *International Journal of Bilingual Education and Bilingualism*, *28*(1), 26–35. https://doi.org/10.1080/15348431.2024.2350021

Everman, D. L. (2020). Third grade math teachers' perceptions of their preparedness to teach the standards for the STAAR math test [Doctoral dissertation, Walden University]. ProQuest Dissertations Publishing. https://scholarworks.waldenu.edu/dissertations/8885/

Gándara, P., & Contreras, F. (2009). The Latino education crisis: The consequences of failed social policies. Harvard University Press.

García, O., & Kleifgen, J. A. (2020). Translanguaging and literacies. Reading Research Quarterly, 55(4), 553–571. https://doi.org/10.1002/rrq.286

Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing assistant's impact on English language learners. Computers and Education: Artificial Intelligence, 3, 100055. https://doi.org/10.1016/j.caeai.2022.100055

Gerchow, L., Burka, L. R., Miner, S., & Squires, A. (2021). Language barriers between nurses and patients: A scoping review. Patient Education and Counseling, 104(3), 534-553. https://doi.org/10.1016/j.pec.2020.09.017

González-Howard, M., & Suárez, E. (2021). Retiring the term English language learners: Moving toward linguistic justice through asset-oriented framing. Journal of Research in Science Teaching, 58(5). 749-752. https://doi.org/10.1002/tea.21684

Guise, M., Hegg, S., Ronan, B., Flushman, T., & Grant, B. J. (2020). Supporting emergent bilingual professional development through supervisor feedback. Journal of Educational Supervision, 3(1), 55. https://doi.org/10.31045/jes.3.1.5

Hakuta, K. (2011). Educating language minority students and affirming their equal rights: Research and practical perspectives. Educational Researcher, 40(4), 163-174. https://doi.org/10.3102/0013189X11404943

Heineke, A. J., & Giatsou, E. (2020). Learning from students, teachers, and schools: Field-based teacher education for emergent bilingual learners. Journal of Teacher Education, 71(1), 148-161. https://doi.org/10.1177/0022487119877373

Huenergarde, M. C., Floyd, R. G., & Harris, B. (2023). Current nationwide practices in U.S. test accommodations for active bilingual learners/users of English (ABLE) students. Bilingual Research Journal, 45(3-4), 380-400. https://doi.org/10.1080/15235882.2022.2155885

Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., … Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. Learning and Individual Differences, 103, 102274. https://doi.org/10.1016/j.lindif.2023.102274

 

Kumar, K., Sreeshma, R., & Kalaiah, M. K. (2020). A comparison of temporal processing and spectral processing abilities of monolingual, bilingual and multilingual children. International Journal of Audiology, 59(7), 501-505. https://doi.org/10.1080/14992027.2020.1720921

Lurie, L. A., Hagen, M. P., McLaughlin, K. A., Sheridan, M. A., Meltzoff, A. N., & Rosen, M. L. (2021). Mechanisms linking socioeconomic status and academic achievement in early childhood: Cognitive stimulation and language. Cognitive Development, 58, 101045. https://doi.org/10.1016/j.cogdev.2021.101045

Menken, K. (2010). NCLB and English language learners: Challenges and consequences. Theory Into Practice, 49(2), 121-128. https://doi.org/10.1080/00405841003626619

Menken, K. (2013). Emergent bilingual students in secondary school: Along the academic language and literacy continuum. Language Teaching, 46(4), 438-476. https://doi.org/10.1017/s0261444813000281

Morita-Mullaney, T., Renn, J., & Chiu, M. M. (2020). Obscuring equity in dual language bilingual education: A longitudinal study of emergent bilingual achievement, course placements, and grades. TESOL Quarterly, 54(3), 685-718. https://doi.org/10.1002/tesq.592

Ortiz, A. A., Fránquiz, M. E., & Lara, G. P. (2022). Educational equity for emergent bilinguals: What's wrong with this picture? Bilingual Research Journal, 45(1), 1-7. https://doi.org/10.1080/15235882.2022.2101318

Ozer, O., & Badem, N. (2022). Student motivation and academic achievement in online EFL classes at the tertiary level. LEARN Journal: Language Education and Acquisition Research Network, 15(1), 361–382. https://so04.tci-thaijo.org/index.php/LEARN/article/view/256727

Pacheco, M. B., Smith, B. E., Deig, A., & Amgott, N. A. (2021). Scaffolding multimodal composition with emergent bilingual students. Journal of Literacy Research, 53(2), 149-173. https://doi.org/10.1177/1086296x211010888

Peng, P., & Kievit, R. A. (2020). The development of academic achievement and cognitive abilities: A bidirectional perspective. Child Development Perspectives, 14(1), 15-20. https://doi.org/10.1111/cdep.12352

Rios, J. A., Ihlenfeldt, S. D., & Chavez, C. (2020). Are accommodations for English learners on state accountability assessments evidence-based? A multistudy systematic review and meta-analysis. Educational Measurement: Issues and Practice, 39(4), 65-75. https://doi.org/10.1111/emip.12337

Sah, P. K., & Uysal, H. (2022). Unbiased but ideologically unclear: Teacher beliefs about language practices of emergent bilingual students in the U.S. Linguistics and Education, 72, 101126. https://doi.org/10.1016/j.linged.2022.101126

Shi, Y., Zaier, A., & Maina, F. (2020). Sheltered Instruction Observation Protocol model: An effective way of promoting teacher candidates' self-efficacy in teaching English language learners. The International Journal of Diversity in Education, 21(2), 1-17. https://doi.org/10.18848/2327-0020/cgp/v21i02/1-17

Soland, J., & Sandilos, L. E. (2021). English language learners, self-efficacy, and the achievement gap: Understanding the relationship between academic and social-emotional growth. Journal of Education for Students Placed at Risk (JESPAR), 26(1), 20-44. https://doi.org/10.1080/10824669.2020.1787171

Swanson, H. L., Arizmendi, G. D., & Li, J. T. (2021). The stability of learning disabilities among emergent bilingual children: A latent transition analysis. Journal of Educational Psychology, 113(6), 1244-1268. https://doi.org/10.1037/edu0000645

Taylor, L., & Banerjee, J. (2023). Accommodations in language testing and assessment: Safeguarding equity, access, and inclusion. Language Testing, 40(4), 847-855. https://doi.org/10.1177/02655322231186221

Texas Education Agency (TEA). (2023). STAAR released test questions. https://tea.texas.gov/student-assessment/staar/staar-released-test-questions

Wilden, E., & Porsch, R. (2020). Teachers' self-reported L1 and L2 use and self-assessed L2 proficiency in primary EFL education. Studies in Second Language Learning and Teaching, 10(3), 631-655. https://doi.org/10.14746/ssllt.2020.10.3.9

Yan, L., Sha, L., Zhao, L., Li, Y., Martinez-Maldonado, R., Chen, G., Li, X., Jin, Y., & Gašević, D. (2024). Practical and ethical challenges of large language models in education: A systematic scoping review. British Journal of Educational Technology, 55(1), 90-112. https://doi.org/10.1111/bjet.13370