

RESEARCH BRIEF

The Dual Language Program. In 2010–2011 Austin Independent School District (AISD) implemented dual language (DL) programs in prekindergarten (pre-K) through 1st grade at 11 pilot elementary schools. In 2012–2013, 60 elementary schools and four centers offered the DL program in pre-K through 2nd and 10 schools (i.e., pilot schools) offered DL through 3rd grade.

AISD offers one- and two-way DL programs. Two-way DL classrooms consist of students from two language groups who are schooled through their two languages (i.e., native English speakers attend classes with native speakers of the partner language). One-way DL classrooms consist of students from one language group who are schooled through their two languages (i.e., students of one heritage language background attend DL classes taught through English and the students' heritage language). The two-way DL program is intended for English language learners (ELLs) as well as non-ELLs, while the one-way DL program is for ELLs only.

Purpose. The following report examines 2012–2013 academic performance results on various measures for ELLs in the DL program.

Key findings. Eighty-one percent of all ELLs in pre-K through 2nd grade were enrolled in the DL program in 2012–2013, the majority of whom were in a one-way DL classroom. A significantly larger percentage of ELLs in the one-way DL program than of ELLs in the two-way program were identified as economically disadvantaged.

A higher percentage of ELLs in the DL program than of their peers in the late exit and English as a second language (ESL) programs met the standard on the 2013 State of Texas Assessment of Academic Readiness (STAAR) 3rd grade reading test. ELLs in the two-way DL program attained better results than did ELLs in the one-way program on the 2013 STAAR 3rd grade reading and mathematics (math) tests, kindergarten through 2nd grade Texas English Language Proficiency Assessment System (TELPAS) domain ratings, and kindergarten through 3rd grade English oral proficiency section of the Language Assessment Scales (LAS Links) and preLAS. However, ELLs in the one-way DL program outperformed their ELL peers in the two-way DL program on the Spanish oral proficiency section of the LAS Links and preLAS.

The Tejas Lee reading comprehension results indicated that 30% of 1st grade and more than 50% of 2nd grade ELLs in the one- and two-way DL programs progressed to *developed* by the end of the school year. Seventy two percent of kindergarteners were *developed* by the end of the year.

The Dual Language Model

Dual language is a type of bilingual education (BE) program that seeks to develop strong cognitive and academic skills through the development of bilingualism and biliteracy. The DL model differs from other BE models in that students continue receiving service during all of elementary school, and students are taught core academic curricula in English and a second language at all grade levels.

In a longitudinal comparison of BE programs by Collier and Thomas (2009), one-way and two-way DL programs were the only BE programs categorized as enrichment (i.e., accelerating academic growth to eliminate achievement gaps) and supportive of additive bilingualism (i.e., acquiring a second language without the loss of cognitive ability in the native language).

AISD has adopted the Gómez and Gómez model for its DL program. For more information on the Gómez and Gómez model, visit: www.dlti.us

Program Overview

In 2012–2013, the DL program was offered at 64 elementary schools in AISD, 62 campuses provided a one-way program only, 18 provided one-way and two-way DL programs, and two campuses offered two-way DL only (see Appendix). Instruction at all campuses was in both Spanish and English, except for Summitt Elementary which offered a one-way DL program in Vietnamese.

The DL program served 10,601 students, of whom 83% were enrolled in the one-way program and 17% in the two-way program. The majority of students in the DL program across the district (93%, $n = 9,866$) were identified as ELLs. One-way DL classrooms contained ELLs only, while the two-way DL classrooms had 1,042 ELLs and 735 non-ELLs. Table 1 provides information about the total number of ELLs in pre-K through 3rd grade and the percentage who participated in a DL program.

Table 1. Number and Percentage of Pre-K Through Third Grade English Language Learners (ELLs), by Bilingual Program Type, 2012– 2013 The majority of ELLs in pre-K through 2nd grade participated in the DL program, followed by ESL and late exit BE programs.

Grade	Total number of students in	# of ELLs in the district	% one-way DL	% two-way DL	% ESL	% late exit	% denied placement
Pre-k	5,104	2,995	81%	7%	9%	2%	1%
K	7,975	3,008	72%	10%	11%	6%	1%
1 st	7,772	2,974	70%	9%	13%	6%	2%
2 nd	7,296	2,810	68%	7%	15%	9%	2%
3 rd *	7,078	2,275	10%	3%	12%	72%	2%

Source. AISD Texas English Language Learners records, 2012–2013 and AISD PEIMS 101 records.

Note. * The DL 3rd grade program was offered at the 10 pilot sites only.

Table 2. English Language Learners' (ELLs) Characteristics, * by program type, 2012–2013

	District (pre-k -3 rd)	One-way DL	Two-way DL	Ninety-eight percent of ELLs in the DL program were Hispanic, and more than 90% were identified as economically disadvantaged. According to state-mandated criteria, all ELLs were identified as being at-risk of dropping out of school. The percentage of special education students in the one-way DL program was comparable to the percentage of special education students in the districts' K through 3 rd grade population. The percentage of gifted and talented students was slightly over represented in the two-way program.
Hispanic/Latino	63.7%	98.3%	99.0%	
American Indian/Alaskan Native	0.2%	0.1%	0.1%	
Asian	3.4%	1.1%	0.1%	
Black/African American	7.9%	0%	0%	
Native Hawaii/Pacific Islander	0.1%	0%	0%	
White	22.3%	0.4%	0.8%	
Economic disadvantaged	68.9%	97.5%**	91.9%	
At risk	61.0%	100%	100%	
Special education	6.4%	6.4%	5.2%	
Gifted and talented	0.8%	0.8%	1.4%	

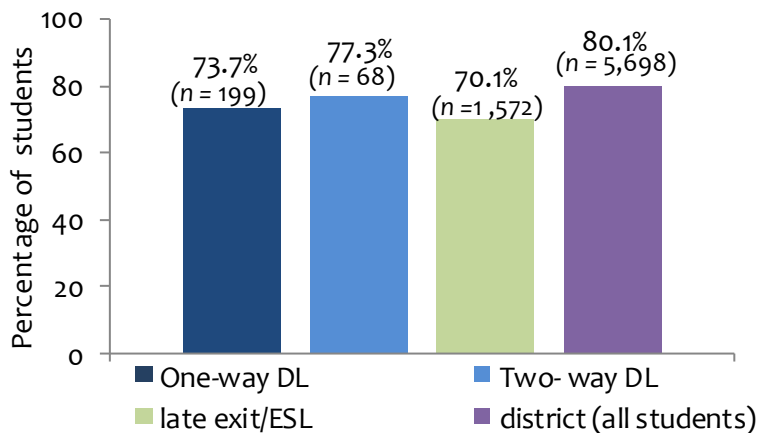
Source. AISD PEIMS, 101 and 110 records, 2012–2013

Note. *Data reflect characteristics of students enrolled in AISD during the last Friday in October 2012. ** Indicates a significant difference between one-way and two-way proportions at $p < .01$

STAAR Reading and Math

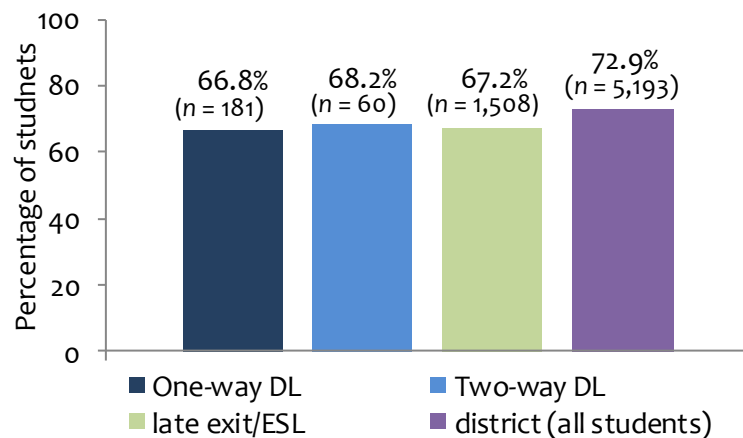
All Texas students in 3rd through 12th grade are mandated to take the STAAR test. Students in 3rd through 8th grade take the reading and math STAAR. Writing is assessed at grades 4 and 7; science is assessed at grades 5 and 8; social studies is assessed at grade 8; and end of course assessments for English I, English II, Algebra I, Biology, and US History occur mostly at grades 9 through 12.

Figure 1. Percentage of Third Grade English Language Learners (ELLs) and All Third Grade Students Who Met State of Texas Assessment of Academic Readiness (STAAR) Reading Level II Phase-in 1 Standard by Program Type, 2012–2013



Source. STAAR records, 2012-2013

Figure 2. Percentage of Third Grade English Language Learners (ELLs) and All Third Grade Students Who Met State of Texas Assessment Academic Readiness (STAAR) Mathematics (Math) Level II Phase-in 1 Standard by Program Type, 2012–2013



Source. STAAR records, 2012-2013

For the first time since the inception of the DL program, in 2012–2013, STAAR reading and math data became available for students in the pilot cohort. Figures 1 and 2 illustrate the percentage of 3rd grade ELLs and all 3rd grade students who met STAAR reading and math passing standards in each program type.

A higher percentage of ELLs in the two-way DL program than in the one-way, late exit, or ESL programs met the reading and math STAAR phase-in 1 standard. ELLs in the one-way DL program outperformed students in the late exit/ESL programs in reading but not in math (see Appendix for STAAR results for each student group).

Because the district has adopted the 50/50 Gómez and Gómez model,¹ in which 3rd grade students receive reading instruction in English and Spanish, and math instruction in English, STAAR results were disaggregated by language tested.

Table 3 indicates that most ELLs in the DL program took STAAR reading in Spanish (81%) and STAAR math in English (83%). Results suggest that the percentage of students meeting the standard was higher for students who tested in English in both subjects.

¹For more information on the Gómez and Gómez model in AISD please view: http://www.austinisd.org/sites/default/files/dre-reports/10.39_Dual_Language_Evaluation_Report_Pilot_Year.pdf

Table 3. Percentage of Third Grade English Language Learners (ELLs) Meeting State of Texas Assessment of Academic Readiness (STAAR) Reading and Mathematics (Math) Level II Phase-in 1 Standard by Program Type and Language Tested, 2012–2013

	STAAR reading		STAAR math	
	Dual language	Late exit	Dual language	Late exit
English	89.6% (n = 60)	72.4% (n = 776)	70.1% (n = 206)	70.0% (n = 933)
Spanish	70.9% (n = 205)	62.0% (n = 463)	52.4% (n = 33)	55.2% (n = 269)

Source. STAAR records, 2012-2013

El Inventario de Lectura en Español (Tejas LEE)

Tejas LEE and Texas Primary Reading Inventory (TPRI) were developed for the purpose of providing educators with instruments that fulfill the early reading assessment requirements of the Federal No Child Left Behind (2001) legislation and of the Texas Education Code. Both tests assess the early reading skills and comprehension development in Spanish and English of students in kindergarten through 3rd grade;² however, because they do not assess the same set of reading skills, results should not be compared.

The Texas Education Agency (TEA) states that all students who receive primary instruction in Spanish should be administered Tejas LEE. An English assessment may be given if the student is receiving reading instruction primarily in English or if a teacher would like to assess a student's English language skills (in addition to the Tejas LEE). The majority of ELLs in the DL program took Tejas LEE in 2012–2013; however, a small percentage of students were administered the TPRI. Use of the TPRI can be partially explained by the fact that some students were in the one-way Vietnamese DL program (see Table 4).

Tejas LEE allows teachers to identify students' literacy level in Spanish, monitor progress over the course of the school year, and plan targeted instruction with the purpose of helping students become proficient readers. Students are assessed three times during the school year (i.e., at the beginning of year, middle of year, and end of year) and are assigned a performance level for each task: a. *desarrollado (D)*/developed, b. *nivel esperado (NE)*/expected performance, and c. *nivel de intervención (NI)*/needs intervention. In most cases, only two levels of performance are presented (i.e., developed and needs intervention); however, some skills are not expected to be developed in certain instances although students can still perform at the expected level.

Table 4. Percentage of Kindergarten (K) Through Second Grade English Language Learners (ELLs) in the Dual Language (DL) Program Who Took Tejas Lee and Texas Primary Reading Inventory (TPRI), 2012–2013

	Tejas Lee	TPRI
K	97%	2%
1st	96%	3%
2nd	88%	8%

Source. Tejas Lee and TPRI records, 2012–2013

Note. Percentages may not add to 100 because some students did not take the test.

²Tejas Lee and TPRI are used in grades kindergarten through grade 2 in AISD.

Tejas LEE assesses five main concepts in different grade levels, and each concept or domain comprises different tasks (see Appendix). Because reading comprehension represents the only domain assessed at the end of year at all grade levels (K through 2nd), and all 1st and 2nd grade students must take this section regardless of performance in prior sections, results on that domain were reported.

Table 5. Change in English Language Learners' (ELLs) Performance Levels from Beginning of Year (BoY) to End of Year (EoY) on Tejas LEE, by Grade Level, 2012–2013

	Remained Developed (D)	Progressed to developed	Total Developed
K*	72%	—	72%
1st	28%	31%	59%
2nd	22%	58%	80%

Source. Tejas LEE records, 2012-2013

Note. *Reading comprehension was assessed only at the EoY in kindergarten therefore, change was not calculated. Change was calculated in the following way: if BoY = D and EoY = D then remained developed; if BoY = NI and EoY = D then progressed to developed; if BoY = NA and EoY = D then progressed to developed; if BoY = NI and EoY = NI then in need of intervention; if BoY = D and EoY = NI then in need of intervention; if BoY = NA and EoY = NI then in need of intervention; if BoY = NA and EoY = NA then discontinued

Overall by the end of the year, 72% of kindergarten, 80% of 2nd grade, and 59% of 1st grade ELLs scored *developed* in reading comprehension. It is important to note that more than half of 1st and 2nd grade students who were *developed* by the end of the year progressed during the school year.

Language Assessment Scales (LAS) Links and preLAS

The LAS Links and preLAS 2000 are state-approved language proficiency assessments that have been used in AISD to make decisions about students' language program entry and exit. The assessments provide a standardized 5-point scale with which students' English and Spanish proficiency can be determined (i.e., 1 = *beginner*, 2 = *early intermediate*, 3 = *intermediate*, 4 = *proficient*, 5 = *highly proficient*). A proficiency score of 4 means that students have the proficiency level in a language equivalent to that of an average native speaker, corresponding to grade level (LASLinks) or age (preLAS).

The pre-LAS and LAS Links measure students' English and Spanish listening, speaking, reading, and writing proficiency. Since 2010–2011, a sample of students in the pilot DL schools have been administered the oral language proficiency sections (i.e., listening and speaking) of these tests.

To increase the sample size, in 2012–2013 kindergarten students in 20 new schools (eight two-way and 12 one-way classrooms) were added.

Table 6. Percentage of Kindergarten (K) Through Third Grade Students Who Took Language Assessment Scales (LAS) and preLAS in Both Languages by Dual Language (DL) Program Type, 2012–2013

	One-way DL	Two-way DL *
K	9.6% (n = 208)	26% (n = 136)
1 st	5% (n = 103)	31% (n = 144)
2 nd	7% (n = 130)	37% (n = 125)
3 rd	34% (n = 80)	70% (n = 92)

Source. LAS and preLAS records, 2012-2013

Note. *ELLs and non-ELLs students

Table 6 illustrates the percentage of students who were administered the LAS and preLAS test in 2012-2013. Because of the program's expansion in grades K-2nd and the lack of resources to administer the test, percentages of students are small, especially in the one-way DL program.

In 2012-2013 the percentage of ELLs who reached oral language proficiency in L1 (i.e., Spanish) was greater in 3rd grade compared to lower grades in the one- and two-way DL programs. Furthermore, the percentage of ELLs attaining oral proficiency in L2 (i.e., English) was greater in 3rd grade compared to kindergarten through 2nd grade ELLs. On the other hand, the percentage of non-ELLs in the two-way DL program who were orally proficient in L1 (i.e., English) remained constant in kindergarten, 1st and 2nd grade and was greater in 3rd grade. The percentage of non-ELLs proficient in L2 (i.e., Spanish) however, remained low across all grade levels.

Figure 3. Percentage of Kindergarten (K) Through Third Grade Students Who Were Orally Proficient³ in Spanish, by Program Type, 2012-2013

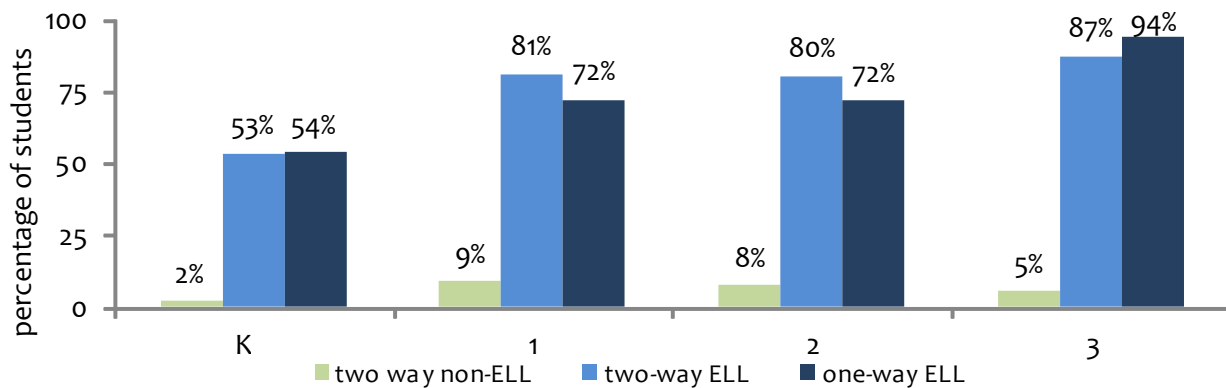
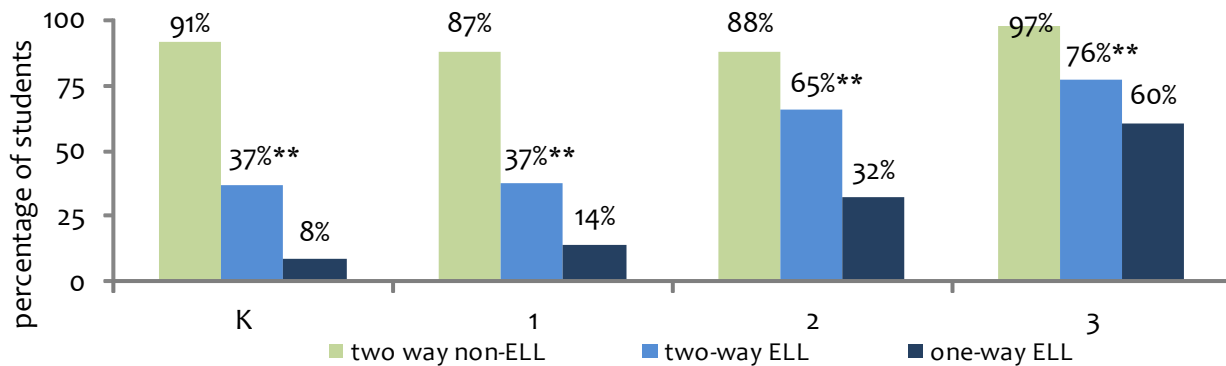


Figure 4. Percentage of Kindergarten (K) Through Third Grade Students Who Were Orally Proficient⁴ in English, by Program Type, 2012-2013



Source. LAS and preLAS 2012-2013 records.

Note. ** indicates a significant difference between two-way ELLs and one-way ELLs at $p < .01$

^{3,4}Proficiency is determined by a score of 4 or 5.

TELPAS

In Texas, ELLs' proficiency is assessed annually using the TELPAS for kindergarten through 12th grade. The TEA examines year-to-year change in students' TELPAS scores to determine if districts met annual measurable achievement objectives (AMAOs) in language proficiency. In 2012–2013, a larger percentage of kindergarten through 2nd grade students in the two-way DL program than in the one-way program made at least one year's progress (Brunner, 2013).

In addition to providing yearly progress measure scores, the TELPAS provides ratings in four language domain (listening, speaking, writing, reading) and a composite score⁵ that determines students' assignment to a rating category (see TELPAS interpretation table). A summary of ELLs' 2012–2013 domain ratings for each program type are provided in Table 7. In most cases, students in the late exit and ESL programs scored higher than did students in the DL program across domains and grade levels. However, comparisons between ELLs in the one-way and two-way programs only suggest that students in the two-way DL program scored significantly higher than did students in the one-way DL program. Across all grade levels, on average, students scored lower on the writing and reading sections of the test than on the listening and speaking sections. Furthermore, as expected, students' language skills improved from one grade level to the next.

TABLE 7. TELPAS INTERPRETATION

Composite range	Numeric value	Rating category
1.0–1.5	1	Beginning
1.6–2.5	2	Intermediate
2.6–3.5	3	Advanced
3.6–4.0	4	Advanced high

Table 8. Texas English Language Proficiency Assessment (TELPAS) Average Domain Scores by Program Type, 2012–2013.

	Listening			Speaking			Writing			Reading		
	One-way	Two-way	Late exit/ESL	One-way	Two-way	Late exit/ESL	One-way	Two-way	Late exit/ESL	One-way	Two-way	Late exit/ESL
K	1.7	2.2**	2.6	1.4	2.1**	2.4	1.1	1.4**	2.3	1.1	1.4**	2.3
1 st	2.3	2.7**	3.0	2.0	2.4**	2.8	1.5	1.7**	2.6	1.7	1.8**	2.7
2 nd	2.9	3.1*	3.2	2.6	2.8**	3.1	2.1	2.4**	2.8	2.7	3.0**	3.0
3 rd	3.0	3.2	3.3	2.7	2.8	3.0	2.3	2.7	2.6	2.9	3.5**	3.1

Source. AISD TELPAS records, 2012-2013

Note. * Indicates significant difference between ELLs in the two-way and one-way program at $p < .05$. ** Indicates significant difference between ELLs in the two-way and one-way program at $p < .01$

References

- Brunner, J. (2013). TELPAS results for English Language Learners, annual report, 2012-2013 (Publication No. 12.55). Austin, TX: Austin Independent School District.
- Collier, V., & Thomas, W.P. (2009). Educating English learners for a transformed world. Albuquerque, NW: Fuentes Press.

⁵Composite language scores were weighted in the following manner: 5% listening, 5% speaking, 75% reading, and 15% writing.

APPENDIX

A1. Elementary Schools With a Dual Language Program, 2012–2013

One-way DL		Two-way DL	One-way DL		Two-way DL
Allan	✓		Metz	✓	
Allison	✓		Norman	✓	
Andrews	✓		Oak Hill	✓	✓
Baldwin	✓		Oak Springs	✓	
Baranoff	✓		Odom	✓	
Barrington	✓	✓	Ortega*	✓	
Becker*	✓	✓	Overton	✓	
Blackshear	✓		Palm	✓	
Blanton	✓		Pecan Springs	✓	
Blazier*	✓	✓	Perez*	✓	✓
Brentwood	✓	✓	Pickle*	✓	
Brooke	✓		Pillow	✓	✓
Brown	✓	✓	Pleasant Hill	✓	✓
Campbell	✓		Read	✓	
Casey		✓	Reilly	✓	
Cook	✓		Ridgetop*		✓
Cunningham	✓	✓	Rodriguez	✓	
Dawson*	✓	✓	Sanchez*	✓	
Dobie pre-k ctr	✓		Sims	✓	
Galindo	✓	✓	St Elmo	✓	
Govalle	✓		Summitt	✓	
Harris	✓		Sunset Valley	✓	✓
Hart	✓		Travis Heights*	✓	✓
Houston	✓		Uphaus ECC	✓	
Jordan	✓	✓	Walnut Creek	✓	
Joslin	✓		Webb Primary Ct	✓	
Kocurek	✓		Widen	✓	
Langford	✓		Williams	✓	
Linder	✓		Winn*	✓	
Maplewood	✓	✓	Wooldridge	✓	
McBee	✓		Wooten*	✓	✓
Menchaca	✓	✓	Zavala	✓	

Note. * Indicates pilot schools. In 2010–2011, Becker had a two-way program only; Perez, Ridgetop, and Wooten had a one-way and two-way programs; and Blazier, Dawson, Ortega, Perez, Pickle, Sanchez, Winn, and Wooten had a one-way program only.

A2. Concepts and Tasks Measured by El Inventario de Lectura en Español (Tejas LEE), by Grade Level,
2012–2013

Concepts and tasks assessed	Kindergarten	Grade 1	Grade 2
Book and print awareness	✓		
Phonological awareness	✓	✓	
• Initial/final sound identification	✓	✓	
• Blending sounds	✓	✓	
• Segmenting sounds		✓	
• Blending/segmenting syllables	✓		
• Deleting initial/final sounds		✓	
• Rhyming knowledge	✓		
Graphophonemic knowledge	✓	✓	✓
• Letter identification	✓		
• Letter-sound matching	✓		
• Word reading	✓	✓	✓
• Spelling		✓	✓
Listening comprehension	✓		
Reading comprehension	✓	✓	✓
• Reading accuracy		✓	✓
Fluency		✓	✓

A3. Percentage of Third Grade Students Who Met State of Texas Assessment of Academic Readiness (STAAR) Reading and Mathematics (Math) Level II Phase-in 1 Standard, by Student Group, 2012–2013

	STAAR reading	STAAR math
African American	71%	59%
Asian	90%	90%
Hispanic	74%	68%
Two or more races	90%	80%
White	96%	89%
Economically disadvantaged	72%	65%
English language learner	71%	68%
Special education	72%	66%

Source. STAAR records, 2012-2013

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