



AUSTIN INDEPENDENT SCHOOL DISTRICT

DUAL LANGUAGE PROGRAM

Pilot Year Evaluation Report, 2010–2011

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EXECUTIVE SUMMARY

Austin Independent School District (AISD) has met or is on target to meet the dual language (DL) implementation goals set forth during the September 14, 2009 board of trustees meeting. In 2010–2011, for the first time, AISD offered the DL program in grades prekindergarten (pre-K) through 1st grade at 10 pilot sites. Students identified as Spanish-speaking English language learners (ELLs) were able to enroll in either a one-way program (i.e., all students were identified as Spanish-speaking ELLs) or a two-way program (i.e., mixed classroom of Spanish-speaking ELLs and English-speaking students). AISD's pilot DL programs used Gómez and Gómez's (1999) 50/50 Dual Language Enrichment Model for instruction and were funded through the American Recovery and Reinvestment Act (ARRA) Title I, A.

The AISD DL program had a total of 81 teachers and 1,418 students participating across the 10 pilot sites. Nearly a quarter of participating teachers (23%) and students (24%) were in the two-way DL program. The two-way programs maintained the recommended ratio of 70:30 for mixed-language speakers in the classroom (Collier & Thomas, 2009). Furthermore, a few one-way pilot schools had low staff-to-student ratios, and the programs at these schools should be encouraged to adopt a two-way model to accommodate the demand for DL by non-ELLs, while keeping the same number of staff.

The majority of surveyed AISD staff had a positive understanding about DL in general; however, approximately one in five teaching and administrative staff was not fully convinced of its effectiveness or the effectiveness of particular components of the Gómez and Gómez (1999) model. To help with stakeholders' buy-in, AISD should continue to educate stakeholders about the DL program, address stakeholders' major concerns, and systematically assess the need for possible program adaptations.

Staff on campuses that implemented a two-way DL program provided more positive ratings for DL implementation than did staff at sites only offering the one-way DL program. Because the majority of elementary campuses with a Spanish bilingual education (BE) program will offer only the one-way DL program next year, program managers should provide more specific guidance to one-way DL campuses about the grade-level objectives and program requirements that will differentiate one-way DL from the late transitional bilingual education (LTBE) model. Support also should be provided to DL parents, especially those who are not proficient in the second language, with regard to how they can help their student through the DL program.

Many pilot DL pre-K and kindergarten students entered AISD with limited oral proficiency (i.e., listening and speaking) in their native language (L1). For progress to be made in a second language (L2), students must develop cognitively and linguistically in their native language (Thomas & Collier, 2009). Despite having lower native language proficiency, many pre-K and kindergarten DL students improved in L1 proficiency and grew faster than the national average in L2. First-grade ELLs were more likely to make language proficiency progress than were students in earlier grade levels; however, current data make it impossible to ascertain how their previous years in a language program affected their oral language growth (i.e., it is possible that having greater Spanish immersion in pre-K, kindergarten, or both contributed to ELLs' English proficiency growth in the 1st-grade DL program.) AISD should continue to monitor the pilot year's pre-K cohort to observe any difference in performance as compared with the performance of the 1st-grade cohort.

SUMMARY OF KEY FINDINGS

PROGRAM IMPLEMENTATION

- AISD is on target to meet the goal of moving from transitional BE models to DL programs, including one-way and two-way, by 2015. To meet this goal, AISD may need to hire additional Spanish BE-certified 4th- and 5th-grade teachers.
- By implementing DL at the 10 pilot campuses, AISD has met the goal of beginning implementation of two-way DL immersion programs at up to three schools and one-way DL immersion at three schools during the 2010–2011 school year.
- AISD is on target to meet the goal of implementing one-way and two-way DL immersion programs at 30% of AISD elementary campuses by 2013. In 2011–2012, AISD plans to implement DL at approximately 76% of AISD elementary campuses. The 24% of elementary campuses that will not implement DL do not have enough Spanish-speaking ELLs to form a BE class and will offer English-as-a-second language (ESL).

STAFF'S RESPONSES TO THE DL PROGRAM

In Spring 2011, the Department of Research and Evaluation (DRE) staff surveyed staff at pilot DL schools and likely 2011–2012 DL schools regarding AISD's implementation of the DL program.

- Seventy-eight percent of surveyed teachers and campus administrators believed that DL is
 effective for helping students learn languages and other academic knowledge and skills.
- In general, non-pilot BE teachers gave lower ratings to their campus climate toward language diversity than did other teaching and administrative staff. Their response was correlated with their perception of their campus administrators' support for the DL program.
- Pilot and non-pilot DL staff had similar ratings for high academic expectations for all students and their promotion of cooperative learning (i.e., areas conducive to a strong DL program).
- In general, BE and DL teachers' ratings of the reinforcement of language were lower than their ratings of other areas necessary for a strong DL program. (This may affect program fidelity if teachers do not receive proper training.)
- Staff at two-way campuses provided higher average ratings regarding DL program implementation than did staff at one-way campuses in the following areas: (a) discussions about campus-wide plans for promoting bilingualism, biliteracy, cross-cultural competence, and grade-level achievement and (b) discussions about how to articulate the DL program across the grade levels. DL teachers on campuses with two-way classrooms were more likely than were DL teachers on campuses with only one-way classrooms to report high comfort levels in providing DL instruction.
- Eighty-three percent of DL teachers reported doing more work under DL than they did under the LTBE model.
- Two-thirds of DL teachers (67%) reported greater motivation using the DL model than using the LTBE model.

- The top three areas needing improvement according to staff were availability of materials and resources (54%), training (40%), and teacher time management for program development and instruction (37%).
- The top concern regarding DL implementation for non-pilot teachers was stakeholder buy-in to the program (32%).
- Nearly one in five (19%) of the respondents addressing concerns about the DL program expressed questions or doubts regarding DL in general or specific tenets of the Gómez and Gómez (1999) model.

PARENTS' RESPONSES TO DL PROGRAM

In Spring 2011, the DRE staff surveyed parents and guardians of students in the DL program.

- Parents who responded to the DL survey were more likely to respond positively on all items in the survey. The top-rated item was "I am supportive of the DL program my child is receiving at this school."
- The item with the lowest average rating by parents was "The faculty and staff have been successful in promoting diversity and understanding among the school community"; however, this item had a relatively high rating of 3.44 on a scale of 1 = low to 4 = high.
- According to the parents surveyed, DL students were most likely to gain exposure to L2
 outside school through media sources (i.e., television and radio), and second most likely to
 gain exposure by playing with L2-speaking peers.

STUDENTS' ORAL LANGUAGE PROFICIENCY

A sample of DL students were tested at the beginning and end of the school year for oral language proficiency in both English and Spanish using pre-Language Assessment Scales (LAS)/LAS Links. Kindergarten and 1st-grade ELLs also were tested with the state-required Texas English Language Proficiency Assessment System (TELPAS) in Spring 2011.

- Eighty-two percent of DL pre-K students were not proficient in L1 or L2 in Fall 2010 (i.e., they had low oral proficiency in their native language). Thirty-six percent of kindergarten DL students were not proficient in their native language in Fall 2010.
- In general, ELLs in the two-way program were more proficient in English in Fall 2010 than were ELLs entering the one-way program.
- All pilot groups across all grades showed greater than the national average growth for minority-language learners in L2, on average.
- First-grade non-ELLs showed the lowest growth among pilot students.
- For the first year of implementation, no statistical difference was found in students' growth in oral language proficiency (i.e., listening and speaking skills) by program type (i.e., one-way or two-way). Students' fall oral language proficiency in L1 and L2 was important in determining the level of their L2 growth in the pilot year.
- Sixty-two percent of 1st-grade two-way DL ELLs progressed by one or more levels on TELPAS, compared with 40% of one-way DL ELLs and 39% of Spanish LTBE ELLs.
- Two-way DL ELLs did significantly better on the TELPAS reading domain than did one-way DL ELLs or Spanish LTBE ELLs.

SUMMARY OF RECOMMENDATIONS

Based on the present report, the DRE staff recommends the following:

- Because students do not exit DL, AISD may need to recruit BE teachers with a strong background in language arts, science, and/or social studies for the 4th- and 5th-grade implementation years to keep up with student enrollment.
- Based on research on the effectiveness of two-way DL programs, the demand for the
 program by non-ELLs, and the lower enrollment of ELLs in the one-way program on some
 campuses, administrators should promote the implementation of two-way DL programs.
 The greater number of non-ELLs recruited will increase the likelihood that the two-way
 program will continue into the upper grade levels.
- AISD should provide additional professional development opportunities to train staff about
 effective strategies to positively engage students in using correct language and speaking in
 L2 during content instruction.
- AISD might offer workshops specific to DL instruction and lesson plans, offer mentoring to DL teachers, or both.
- Program managers should develop specific grade-level goals for the DL program so campus administrators can have targets to build their campus plans, and should articulate these goals to staff.
- Program managers can explore ways for staff to share with them their concerns regarding DL implementation and could create a publically accessible document that addresses the issues raised by staff.
- Non-ELL enrollment for the two-way program should remain restricted to pre-K, kindergarten, and 1st grade unless the student was in a DL program or has a L2 background similar to his or her two-way DL grade-level peers.
- Because enriched language development in a second language (i.e., L2) requires students'
 proficiency in their L1, the goal for the AISD pre-K and kindergarten DL programs should be
 to achieve L1 proficiency. By the end of 1st grade, on average, ELLs should be at the national
 average of English language proficiency for minority-language learners.
- Campuses might provide the non-ELLs in the two-way program with resources and materials
 to help with Spanish language exposure prior to the start of school. Campuses should
 provide all DL parents with information about how to support their child in L2 throughout
 the year.
- First-grade DL teachers should encourage DL students to engage in journal time in L2 when appropriate.

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Introduction

Austin Independent School District (AISD) has a linguistically diverse population, with 29% of students speaking a language other than English. In Fall 2010, at least 69 languages other than English were reported as being spoken at home by AISD students and their families. Texas law requires that every student with a primary home language other than English, who is identified as limited English proficient (LEP), be provided with a full opportunity to participate in a bilingual education (BE) or English as a second language (ESL) program. In 2010–2011, in addition to late transitional (LT) BE and ESL, AISD offered for the first time dual language (DL) instruction for prekindergarten (pre-K), kindergarten, and 1st-grade students at 10 pilot schools in either a one-way or a two-way (i.e., immersion) program.

AISD Department of Research and Evaluation (DRE), formerly Department of Program Evaluation, was asked to evaluate the DL program during its pilot year. The purposes of this report are to (a) explain the Gómez and Gómez (1999) DL model used by AISD; (b) document the activities of the DL program planning year; (c) summarize the implementation plan for the DL program; (d) describe pilot student and teacher participants; (e) summarize feedback from administrators, teachers, and parents regarding DL pilot program implementation; (f) evaluate DL students' language proficiency in both English and Spanish; and (g) estimate a cost per student for the DL pilot program.



Terminology Used in This Report

The terms limited English proficient (LEP) and English language learner (ELL) are used interchangeably throughout this report.

LEP is used in state accountability documentation to classify students whose dominant language is other than English and who have been tested and determined to be of limited English language proficiency. ELL is more commonly used to describe students who are not yet proficient in English.

Bilingual refers to the ability to speak fluently in two languages.

Biliterate refers to the ability to read and write in two languages.

Bicultural pertains to the presence of two cultures in one setting.

Dual language (DL) is a type of bilingual education (BE) program in which instruction is provided in both English and a second language. In the pilot year, DL was offered in English and Spanish only.

EVALUATION MANDATE

Chapter §89.1611 of Texas Education Code (32 TexReg 4548, 2007) states the following in reference to program evaluation:

- (a) A school district implementing a dual language immersion program must conduct annual formative and summative evaluations collecting a full range of data to determine program impact on student academic success.
- (b) The success of a dual language immersion program is evident by students in the program demonstrating high levels of language proficiency in English and the other language and mastery of the Texas Essential Knowledge and Skills for the foundation and enrichment areas. Indicators of success may include scores on statewide student assessments in English, statewide student assessments in Spanish (if appropriate), norm-referenced standardized achievement tests in both languages, and/or language proficiency tests in both languages.

THE DUAL LANGUAGE MODEL

The goal of the BE program is to enable ELLs to become competent in comprehension, speaking, reading, and writing through the development of literacy and academic skills in the students' primary language. The state of Texas has four recognized BE programs: transitional late-exit (LTBE), transitional early exit, two-way dual language (DL), and one-way DL. BE programs are offered only in AISD elementary schools where the population of ELLs in a language is sufficient (i.e., 20 or more students in a grade level) to provide a BE-certified teacher [TEC §29.053(c)]. Prior to 2010–2011, AISD offered the LTBE model in Spanish, Vietnamese, and Korean.

Transitional BE models provide a process for students to transition to English or ESL instruction. The LTBE model extends the process of the transition from Spanish reading to English reading over several years. ELLs in the LTBE program generally are placed in classrooms with other ELLs who share the same native language (L1) for pre-K through 3rd grade (i.e., self-contained classrooms) and core content instruction is taught in their native language. Special area courses are shared with English-speaking students. As an ELL's English proficiency increases, the student can be grouped with other English-speaking or ESL students for mathematics (math), science, and social studies. Support in an ELL's native language is still provided in these core content areas based on student English proficiency until the student exits the program or attends middle school. (In early-exit transitional BE, ELLs receive BE instruction for a shorter duration of time until they are transitioned into English instruction, usually by 2nd or 3rd grade.)

The DL model differs from the transitional late-exit model in two major ways: first, students do not exit (or transition from) the program at any time during elementary school, and, second, students are taught core academic curriculum through both English and a second language at all grade levels in the program (i.e., no ESL block or pullout).

ONE-WAY VERSUS TWO-WAY DL PROGRAMS

For the first time in 2010–2011, AISD implemented both one-way and two-way DL programs for native Spanish-speaking ELLs at 10 elementary schools. *One-way* and *two-way* refer to the demographic mix of students who attend the bilingual classes (Collier & Thomas, 2009). One-way classrooms have native speakers from only one language who are instructed in English and in their native language (i.e., Spanish). Two-way classrooms have native speakers from two different languages who are acquiring the non-native language as a second fluent language (i.e., Spanish and English). One-way classrooms serve ELLs only, and two-way classrooms have an equal mix of ELLs and native English speakers.

The goal of AISD's Department of English Language Learners is to phase in the one-way DL program as the primary bilingual program serving native Spanish speakers across the district. The two-way DL program serves as an enrichment program for both native Spanish-speaking students and native English-speaking students, especially on campuses with low enrollments of Spanish ELLs. Currently, schools must apply to the district's ELL department to have a two-way DL program.

WHY DL?

In a longitudinal comparison of ELL programs by Collier and Thomas (2009), one-way and two-way DL programs were the only ELL programs categorized as enrichment programs (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). Transitional early-exit BE, ESL pullout, and content-based ESL programs were categorized by Collier and Thomas as remedial (i.e., student performance below the national norm) and contributing to subtractive bilingualism (i.e., loss of cognitive ability due to acquiring a second language [Skutnabb-Kangas & Cummings, 1998; Fillmore, 1991]). Their comparison study did not include programs using the LTBE model. They note, "If done more as an enrichment model, LTBE has the potential to result in achievement closer to one-way dual language education" (p. 66).

The research by Collier and Thomas (2004, 2009) supports the academic advantages of one-way and two-way DL programs over the benefits of the other types of programs studied. One-way and two way DL programs provided more instructional assistance by a qualified BE/ESL instructor in both languages for a longer time period, which was related to higher academic achievement among ELLs and a full closure of the achievement gap between ELLs and non-ELLs. Students can become orally proficient in about 2 years, but need 5 to 7 years to achieve full academic language proficiency (Lindholm-Leary, 2001). L1 support is necessary to maintain the achievement gap closure. In their study comparing Houston Independent School District students under the content ESL model and the LTBE model, Collier and Thomas (2009) found that cognitive and academic slowdown did not show up in students' test scores until high school, when the academic challenge is greatest and tests are most difficult. Students who participated in the LTBE model performed better on average than did content ESL students. However, LTBE students, on average, still performed below the norm in high school. One-way and two-way DL programs, on average, had students who performed at or above the norm on achievement tests (Lindholm-Leary, 2001; Thomas & Collier, 2002).

GÓMEZ AND GÓMEZ 50/50 DUAL LANGUAGE ENRICHMENT MODEL

AISD has adopted the Gómez and Gómez (1999) model for its DL program. The 50/50 model for both one-way and two-way programs provide 50% instruction time in English and 50% instruction time in Spanish. The Gómez & Gómez 50/50 DL model is unique compared with other 50/50 DL models in that it has the following characteristics:

- The language of instruction is consistently divided by subject areas, with the promotion of content-area biliteracy.
- Conceptual refinement activities are provided at the end of lessons to support students in their L2 rather than L1.
- Scaffolding of students based on language ability (i.e., bilingual pairs or groups) is used for all classroom learning activities.
- Bilingual learning centers (pre-K through 2nd grades) and bilingual resource centers (3rd through 5th grades) are incorporated in students' daily routines.
- Non-instructional school language is promoted throughout the day by all students, parents, and school staff, based on the alternating language of the day.

Language of Instruction

Unlike other 50/50 DL models, the Gómez and Gómez (1999) model does not teach all subject areas in both languages. One language is designated for each subject area (except for reading/language arts, which are taught in the student's L1 in pre-K through 1st grade and in both languages in 2nd

through 5th grade). Mathematics (math) is taught in English. Social studies and science are taught in Spanish. By providing consistent instruction in only one language, the vocabulary and conceptual development of the subject area also maintains consistency. The model indicates that for the language of instruction to be effective, the subject matter should not be translated or clarified in the student's L1.

Specialized vocabulary enrichment (SVE) activities that occur once a week for 15 to 20 minutes provide 3rd- through 5th-grade students with the subject-area vocabulary they need in the other language. During this time, vocabulary that was introduced in English is taught in Spanish, and vice versa. Students are expected to develop sufficient fluency in both languages by the end of 5th grade so they can transfer content-area knowledge from one language to another easily. An expected outcome of this model is students' biliteracy of content-area knowledge. In other words, students understand subject areas in two languages with fluency.

Conceptual Refinement

Although subject area instruction is only provided in one language, L2 learners are provided additional support through conceptual refinement for 15 to 20 minutes following each lesson. This support is given to homogenously grouped students who require additional reinforcement of the material to comprehend the subject matter (Gómez & Gómez, 1999). This method allows teachers to raise the rigor of the academic expectation for all students, while providing additional support to L2 learners.

Bilingual Pairs and Groups

The Gómez and Gómez (1999) model adopts a cooperative learning approach by placing students in bilingual pairs (2 students) or groups (4 to 6 students). Students are paired by differing levels of language proficiency and content proficiency. For example, a highly English-proficient student is paired with a moderately English-proficient student, or a low science-proficient student is paired with a moderately science-proficient student. The grouping of students should be flexible and changed throughout the day and the academic year. Teachers provide students time so they can learn from each other, reinforcing their language and content-area acquisition.

Bilingual Learning and Resource Centers

Bilingual learning and resource centers provide activities and materials in both English and Spanish to support L1 and L2 development. Bilingual learning centers for pre-K through 2nd grade provide bilingual pairs self-directed activity that (a) facilitates opportunities for students to use L1 and L2 language in a natural, meaningful context; (b) allows for negation of subject-area meaning between learners; and (c) encourages self-paced, independent learning, with minimal guidance from the teacher (Gómez & Gómez, 1999). The materials and activities relate to the themes presented in the lessons and students rotate through them during the week. All the materials do not have to be in both languages. Rather, the centers should provide activities and materials in two languages so the bilingual pair can choose an activity to complete together in either language.

The bilingual resource centers for 3rd through 5th grade serve as subject specific reference areas (Gómez & Gómez, 1999). The emphasis for the DL model in the upper elementary grades is project-based learning (i.e., discovery learning). A bilingual resource center is needed for each content area: mathematics, social studies, science, and language arts.

Language of the Day

Non-content-area language is promoted through the entire campus participating in the language of the day (LOD). All activities outside the subject areas with a designated language of instruction should be conducted in the LOD. When the LOD is used by people outside the classroom environment (i.e., campus administrators, other campus staff, other students, and parents), the language is validated by the community as having equal importance and promotes biculturalism and positive cross-cultural attitudes (Gómez & Gómez, 1999). Although not required, participation by the entire campus in the LOD is strongly encouraged. Within the classroom, the LOD can be used in reviews of the calendar or alphabet, journal writing, read-alouds, and other routine activities. The LOD provides additional time for 50/50 language use during the course of the week to reinforce vocabulary.



"When a child's first language (L1) development is discontinued before it is completed, the child may experience negative cognitive effects in second language (L2) development. Developing cognitively and linguistically in first language at least throughout elementary school years provides a knowledge base that transfers from first language to second language."

(Collier & Thomas, 2009)

SUMMARY OF AISD INSTRUCTIONAL DUAL LANGUAGE MODEL

Both the one-way and two-way DL programs in AISD incorporate the Gómez and Gómez 50/50 model. The language of instruction for each content area is as follows:

Subject area Language

Reading/language arts

Pre-K through 1st grade Native language only
2nd through 5th grade Both English and Spanish

Mathematics

Pre-K through 5th grade English

Science and social studies

Pre-K through 5th grade Spanish

Language of the Day

Monday, Wednesday, Friday Spanish Tuesday, Thursday English

PLANNING YEAR, 2009–2010

According to a 2009 board brief, AISD established the Dual Language Committee (ADLC) in 2006 to explore DL programs and their implementation viability. The committee concluded that DL programs

- are extremely effective in raising the academic achievement of all students,
- are the only programs that close the achievement gap for ELLs,
- require structure and budgetary support for effective implementation and maintenance, and
- give students an advantage to compete in a global economy.

The superintendent's cabinet determined that the district was not ready to implement the DL program due to various budgetary and resource issues, and in 2006, the board of trustees received the recommendation that implementation of the DL program should not be given further consideration at that time.

Renewed conversation around DL motivated a board of trustees work session on DL and the acquisition of English on September 14, 2009. A timeline for research and planning was developed and accomplished by the Department of English Language Learners (formerly known as the Office of BE/ESL) and the superintendent, and included the following actions:

- Build community interest through community meetings
- Meet with elementary principals
- Post a request for proposals (RFP) for a DL program consultant
- Post a position for DL coordinator
- Meet with elementary principals who were interested in DL at their site
- Visit Yselta Independent School District to observe DL programs and meet with key staff members regarding DL implementation
- Receive applications for consideration of DL program sites
- Select program sites for DL program implementation
- Develop criteria for DL principal selection
- Develop an application and process for student selection (AISD, 2009)

Selection of Pilot Schools

Elementary campuses interested in implementing a DL program in the pilot year completed an application. Nine applications were evaluated by a DL selection committee for two-way campuses, which was facilitated by AISD's DL director. The committee considered the following criteria: (a) Title I campus, (b) student population size, (c) school leadership, (d) vertical team support, (e) space and facility adequacy, and (f) location relative to other sites.

In January 2010, the committee recommended Wooten and Perez Elementary Schools as two-way DL sites, and Becker and Ridgetop Elementary Schools as two-way sites, contingent upon recruitment of students and analysis of campus resources (AISD, 2010).

The DL selection committee met in February 2010 to evaluate applications for pilot one-way campuses. Of the six applications, Sanchez, Dawson, and Ortega Elementary Schools were selected as one-way DL pilot sites and Blazier, Winn, and Pickle Elementary Schools were accepted as one-way sites, contingent on the availability of resources.

IMPLEMENTATION PLAN

AISD outlined three implementation goals for DL in the December 14, 2009 board briefing:

- 1. To move from transitional BE models to DL programs, including one-way and two-way, by the 2015–2016 academic year
- 2. To begin implementation of two-way DL immersion programs at up to three schools and one-way DL immersion at three schools during the 2010–2011 school year
- 3. To implement one-way and two-way DL immersion programs at 30% of AISD elementary campuses by the 2013–2014 academic year



"The Dual Language program seems to be the perfect antecedent to a liberal arts education in college and (for) a well-rounded individual in the professional world. (Dual language) promotes acceptance in perspective to other cultures and the world around us."

AISD DL teacher



Goal 1: To move from transitional BE models to DL programs, including one-way and two-way, by 2015

Table 1 provides the DL implementation plan to move to one-way DL as the primary BE program offered in AISD by 2015. The first cohort of students on a campus to begin DL are in pre-K and 1st grade, and additional grade levels are gradually incorporated each year as the cohort moves up to the next grade level. Teachers, administrators, and campus instructional leaders at DL schools complete a 3-day professional development institute on the Gómez and Gómez (1999) model during the summer prior to their DL implementation.

For pre-K through 1st grade, the development of cognitive academic language proficiency (CALP) is accomplished in students' L1, while basic interpersonal communication skills (BICS) are developed in L2 (Gómez & Gómez, 1999; Figure 1). English acquisition is not the sole goal of DL. Rather, the primary goal is students' mastery of content area skills that can be demonstrated in two languages by the 5th grade. According to Gómez and Gómez, the theory underlying DL assumes that a student develops academic English after developing academic Spanish. With the majority of ELLs starting the DL program in pre-K through 1st grade, students develop a foundation in L1 CALP and L2 BICS, maximizing the potential of program effectiveness.

In 2nd grade, the focus is still on L1 CALP and L2 BICS; however, CALP in L2 is also developed. Unlike transitional BE, students in DL do not exit the program after L2 BICS has been achieved, or in the case of LTBE, after L2 CALP has been achieved. Students continue in DL in grades 3 through 5 developing L1 and L2 CALP. All students who started DL in pre-K through 1st grade are expected to be on grade level in both languages by 5th grade.

Grade level	2010–2011	2011–2012	2012–2013	2013–2014	2014–2015	2015–2016
Prekindergarten	PILOT	✓	✓	✓	✓	✓
Kindergarten	PILOT	✓	✓	✓	✓	✓
1	PILOT	\checkmark	\checkmark	\checkmark	\checkmark	✓
2		PILOT	\checkmark	\checkmark	\checkmark	✓
3			PILOT	\checkmark	\checkmark	✓
4				PILOT	\checkmark	✓
5					PILOT	✓

Table 1. AISD Dual Language (DL) Implementation Plan 2010–2011 Through 2015–2016

Source. AISD Department of English Language Learners

Note. DL programs were piloted on 10 elementary campuses in 2010–2011 (i.e., Becker, Blazier, Dawson, Ortega, Perez, Pickle, Ridgetop, Sanchez, Winn, and Wooten). In 2011–2012, DL programs will be extended to all elementary campuses with Spanish BE programs (n = 60) for prekindergarten, kindergarten, and 1st grade. Fifth grade is the highest grade in which DL is planned to be offered. DL will be considered for program incorporation at secondary grade levels in future years.

Native language (L1)

CALP

CALP

CALP

Second language (L2)

BICS/CALP

CALP

Prekindergarten – 1st

BICS

Figure 1. Language Acquisition in the Dual Language Model

BICS – Basic interpersonal communication skills

CALP – Cognitive academic language proficiency

Source. Gómez and Gómez, 1999

To expand DL district wide beyond the 2013–2014 school year, AISD will need to recruit approximately 24 additional 4th-grade BE teachers and 48 additional 5th-grade BE teachers. Table 2

provides the estimated minimum number of Spanish BE teachers required, based on Fall 2010 enrollment of Spanish-speaking ELLs under a district-wide LTBE model. Under LTBE, ELLs may exit the language program starting in 3rd grade, and the majority of ELLs in the district exited in 4th grade (Brunner, 2009 b). The estimates assume 4th and 5th grade will minimally need approximately the same number of staff as in 3rd grade.

Table 2. Spanish-Speaking English Language Learners (ELLs) Participating in Bilingual Education (BE)

Program, by Grade Level, Fall 2010

	<u> </u>	•
	Number of	Minimum number of Spanish BE
Grade level	Spanish ELLs	teachers required
Prekindergarten	2,598	130
Kindergarten	2,602	119
First grade	2,474	113
Second grade	2,337	107
Third grade	2,205	101*
Fourth grade	1,822	83*
Fifth grade	1,159	53*

Source. PEIMS, Fall 2010

Note. Minimum number of Spanish BE teachers required was calculated by assuming a staff-to-student ratio of 1:20 for prekindergarten and 1:22 for kindergarten through Grade 5. Grades 4 through 5 have a lower number of BE teachers represented due to Spanish ELLs exiting the BE program.

Policy Implication: Because students do not exit DL, AISD may need to recruit BE teachers with a strong background in language arts, science, social studies, or all three content areas for the 4th- and 5th-grade implementation years to keep up with enrollment.

Goal 2: To begin implementation of two-way DL immersion programs at up to three schools and one-way DL immersion at three schools during the 2010–2011 school year

Ten AISD elementary campuses were part of the DL pilot in 2010–2011. Six campuses implemented one-way DL only (i.e., Blazier, Dawson, Ortega, Pickle, Sanchez, and Winn). One campus implemented two-way DL only (i.e., Becker). Three campuses implemented both one-way and two-way classrooms (i.e., Perez, Ridgetop, and Wooten).

Goal 3: To implement one-way and two-way DL immersion programs at 30% of AISD elementary campuses by 2013

In 2010–2011, AISD had 79 elementary campuses. Sixty of the 79 elementary campuses will implement DL in 2011–2012, representing 76% of AISD elementary campuses. The 19 elementary schools that will not implement DL did not have sufficient number of Spanish ELLs to have a BE program. Appendix A has a list of elementary campuses that will implement DL in 2011–2012.

PILOT YEAR PROGRAM PARTICIPATION, 2010–2011

The AISD DL program had a total of 81 teachers and 1,418 students participating across the ten pilot sites (Table 3). Nearly a quarter of participating teachers (23%) and students (24%) were in the two-way DL program located across 4 sites (i.e., Becker, Perez, Ridgetop, and Wooten). Ninety-two percent of all students in the DL program were economically disadvantaged; 97% of ELLs were economically disadvantaged, while 57% of non-ELLs were economically disadvantaged. Four percent of DL students were also identified as receiving special educational services.

Table 3. AISD One-Way and Two-Way Dual Language (DL) Pilot Program Participants, 2010–2011

	•				<u> </u>		•		
	Prekind	Prekindergarten		Kinde	Kindergarten		1st Grade		
	Number of	Nu	mber of	Number of	Nu	mber of	Number of	Nu	mber of
	Teachers	St	udents	Teachers	St	udents	Teachers	St	udents
One-way									
Blazier	3		38	2		33	2		39
Dawson	1		16	1		15	-		-
Ortega	1		20	1		14	2		25
Perez	4		73	3		55	2		37
Pickle	5		78	5		88	5		98
Ridgetop	1		17	-		-	-		-
Sanchez	3		46	3		52	3		55
Winn	2		34	2		41	2		30
Wooten	3		54	3		62	3		54
Sub-total	23		376	20		360	19		338
Two-way		<u>ELL</u>	Non-ELL		ELL	Non-ELL		<u>ELL</u>	Non-ELL
Becker	2	10	24	2	12	22	2	12	24
Perez	-	-	-	2	20	21	2	24	15
Ridgetop	-	-	-	2	12	21	2	17	20
Wooten	1	8	7	2	22	21	2	21	11
Sub-total	3	18	31	8	66	85	8	74	70
Total	26		425	28		511	27		482

Source. AISD Student records, Department of English Language Learners records

Note. PEIMS records had an estimated 7% undercount of students participating in the DL program due to coding issues. DRE used homeroom class enrollments for all identified DL teachers to count DL students who were enrolled during any part of the academic year.

The staff-to-student ratios at some of the pilot DL schools were low (Appendix B). Four of the 10 pilot schools were among the *Facility Master Plan* list of schools considered for consolidation due to low utilization (AISD, 2011). Also, two two-way DL schools had an ELL-to-non-ELL ratio that favored non-ELLs due to the demand of the two-way program by non-ELLs in the surrounding areas (Table 4).

Table 4: Two-way Dual Language English Language Learner to Non-English Language Learner Ratio, by Grade-level and School, 2010–2011

	, , , , , , , , , , , , , , , , , , , ,					
	Prekindergarten	Kindergarten	First Grade			
	Fall	Fall	Fall			
Becker	29:71	35:65	33:67			
Perez	-	49:51	62:38			
Ridgetop	-	36:64	46:54			
Wooten	53:47	51:49	66:34			

Source. AISD Student records, Department of English Language Learners records

Collier and Thomas (2004) recommended "a ratio of 70:30 as the minimum balance required to have enough L2 peers in a class to stimulate the natural second language acquisition process" (p. 3). This ratio was maintained by the two-way pilot schools. (Although Becker's overall pre-K ratio was slightly out of the bounds, the ratio was maintained per classroom.) Perez and Wooten did not recruit as many non-ELLs for the 1st-grade DL program, which might make it difficult for this cohort's two-way program to maintain the recommended ratio of L2 peers in a classroom in future years. For a classroom size of 22 students, the minimum number of non-ELLs in a classroom that is required is seven students.

Policy Implication: If a few schools with a one-way program were paired with a school with a two-way program, more non-ELLs can be served with the same number of staff, providing an ELL-to-non-ELL ratio closer to 50:50.

Alternatively, one-way programs can be converted to two-way programs to accommodate more non-ELLs and draw students to those underutilized schools.

The greater number of non-ELLs recruited, the more likely it will be for a two-way program to continue into the upper grades.

STAFF'S RESPONSE TO THE DL PROGRAM

DL STAFF SURVEY

In late March and early April 2011, DRE staff administered a survey adapted from Lindholm-Leary's (2001) evaluation of DL in California to DL teachers, 2nd- through 5th-grade teachers, and campus administrators at the 10 pilot schools and to pre-K through 5th-grade teachers and campus administrators at 57 elementary campuses designated by the Department of English Language Learners as possible DL sites in the 2011–2012 school year, based on Spanish ELL population size (see Appendix A). The survey contained items related to staff perceptions of DL professional development opportunities, program implementation, campus leadership support of the DL program, campus climate toward ELLs and DL, and resources (Appendix C).

The survey had a total of 785 respondents, with a completion rate of 78% of pilot DL teachers (n = 63), 62% of campus administrators from 57 future campuses and 10 pilot schools (n = 88), and 37% of non-pilot teachers (n = 634). All potential DL schools had at least two teachers respond to the survey. The additional non-pilot teacher participants included 400 BE teachers, 155 ESL teachers, 42 special education teachers, and 37 general education teachers. Figure 2 provides a description of the participants in the DL staff survey. Fifty-nine percent of DL staff surveyed had completed some coursework taught in a non-English language (see Appendix Figure C-1).

Dual language teachers 63 Late-exit transitional bilingual teachers 400 English as a second language teachers 155 Campus administrators 88 42 Special education teachers General education teachers 37 50 100 150 200 250 300 350 400 Number of respondents ■ Non-pilot schools ■ Pilot schools Source. Staff Dual Language Survey, Spring 2011

Figure 2. Respondents to the Dual Language Staff Survey, Spring 2011

STRENGTHS OF THE DL PROGRAM

Pilot teachers and pilot and non-pilot campus administrators were asked their opinions about the top three strengths of the DL program (Appendix Table C-2). Promotion of biculturalism was the strength of the DL program cited by the highest percentage of respondents (33%). One administrator stated, "I think that (DL), especially the two-way, will strengthen understanding, tolerance, and empathy for difference." Another theme mentioned as a strength of DL related to biculturalism was the equal value placed on both English and Spanish (23%). A teacher said, "There is social equity in the classroom as opposed to the majority language being valued more than the minority language."

In addition to the equal value placed on language and culture, DL teachers' and administrators' comments indicated that DL built a sense of community, especially among students working together

(29%). One teacher stated that DL "creates a great sense of community in my class. I feel that (DL) contributes immensely to the high level of comfort, risk-taking, and strong working relationships in my classroom."

The high academic rigor of DL was cited by 29% of respondents as a strength, which was related to their perception of students' confidence and pride in oneself (11%). A teacher said DL "having high standards for students (and) treating all students as gifted and talented inculcates in students high self-esteem and feelings of pride in their accomplishments and individual talents." Another teacher corroborated: "I love the rigor expected in (DL). I...present activities and set the 'stage' for students to experiment and discover by themselves as much information as they want." Figure 3 provides a word cloud of staff's perception of DL strengths.

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Figure 3. Staff Survey Response to the Dual Language Program's Greatest Strengths, Spring 2011

Source. AISD Staff Dual Language Survey, Spring 2011 *Note*. Word cloud image created by Tagxedo

STAFF'S PERCEPTIONS OF CAMPUS CLIMATE FOR DL

Seventy-eight percent of all survey respondents believed DL was effective for helping students learn language and academic knowledge and skills, 17% had no response, and 4% did not agree that DL is an effective program (see Appendix C for items). BE teachers rated their general support for DL significantly higher than did ESL and other teaching staff (p < .001).

The top three strengths cited by staff (i.e., promotion of biculturalism, high academic standards, and cooperative learning) support a positive campus climate conducive for a strong DL program. Staff were asked to rate items related to DL campus climate using a Likert scale ranging from 4 = strongly agree to 1 = strongly disagree. Figure 4 provides average responses from pilot and non-pilot school staff.

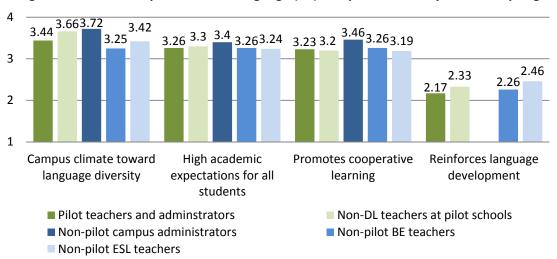


Figure 4. Staff's Perception of Dual Language (DL) Campus Climate, by Position, Spring 2011

Source. AISD Staff Dual Language Survey, Spring 2011

Note. Response scale ranged from 4 = *strongly agree* to 1 = *strongly disagree*. Campus administrators were not asked items relating to the reinforcement of language.

Campus administrators who responded to the survey rated their campus climate toward DL significantly higher than did other staff; however, this is most likely due to selection bias (i.e., administrators who were more inclined to support the DL program were more likely to respond to the request to complete the survey.)

Having a DL program on the campus did have a positive effect on non-DL teachers' perception of the campus climate toward language diversity. Non-DL teachers on the pilot campuses (i.e., 2nd-through 5th-grade teachers) rated their campus significantly higher than did the pilot teachers and administrators and other non-DL teachers. In general, non-pilot BE teachers rated campus climate toward language diversity significantly lower than did other staff. Non-pilot BE teachers' ratings for campus climate toward language diversity were correlated with their perception of their campus

1

¹ Sum of percentages does not add to 100% due to rounding.

administrators' support for the DL program (r = .68, p < .001). A third of all responding teachers (33%) from non-pilot schools *disagreed* or *strongly disagreed* that their site's campus leadership was supportive of a DL program (see Appendix Figure C-3), compared with 12% of teachers at pilot schools who gave these responses. For an effective DL program, the principal must be the main advocate for the program (Riehl, 2000).

Pilot staff and non-DL teachers shared nearly similar ratings with respect to their high academic expectations for all students and their promotion of cooperative learning. This finding suggests that new DL teachers will be receptive to the academic rigor and bilingual pairs (i.e., cooperative learning) used by the DL model.

Almost half of all surveyed teachers (49%) gave low ratings to the reinforcement of language development. The reinforcement of language development scale comprised two items: responding to students who speak in another language during content instruction and correcting students whose attempts at communication are expressed incorrectly. DL teachers most likely provided the lowest ratings on these items because they were bound to a designated language by subject and day and were conscious of their reaction when a child asked a question or responded in another language. Nearly a quarter of staff (24%) reported not correcting students when attempts at communication were expressed incorrectly.

Suggestion for Further Research: Future research should explore teachers' attitudes toward the reinforcement of language because this area has the potential for not being performed with fidelity across classrooms. It is possible that teachers are negotiating the balance of correcting students' use of language and not discouraging students from responding (i.e., using language) or participating in the classroom. Training might be offered that provides teachers strategies to positively correct students' language.

STAFF'S PERCEPTIONS OF DL PROGRAM IMPLEMENTATION

Campus administrators and DL teachers at the 10 pilot schools were asked items related to the development of program foundation (i.e., development and promotion of DL goals and objectives); integration of non-DL and DL staff; teamwork among teachers; and teacher outlook (i.e., satisfaction and comfort level with DL). An overall program implementation rating scale was created using four subscales, ranging from 1= *very low* to 4 = *very high* (see Appendix C for survey items).

Figure 5 provides staff's (i.e., DL teachers and campus administrators) ratings of program implementation by one-way only, combined one-way and two-way, and two-way only campuses.

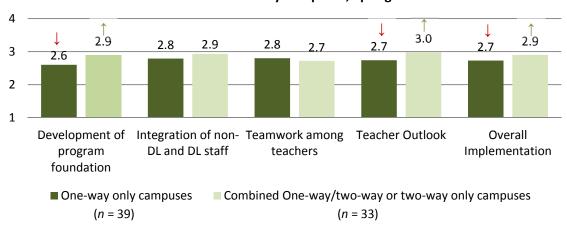


Figure 5. Average Staff Ratings of Campus Dual Language (DL) Program Implementation, by One-way and Two-way Campuses, Spring 2011

Source. Staff Dual Language Survey, Spring 2011

Note. The arrows represent significant differences in means, based on t-tests, p < .05. Perez, Wooten and Ridgetop provided both one-way and two-way classrooms; Becker provided only two-way classrooms; and Blazier, Dawson, Ortega, Pickle, Sanchez, and Winn only had one-way classrooms.

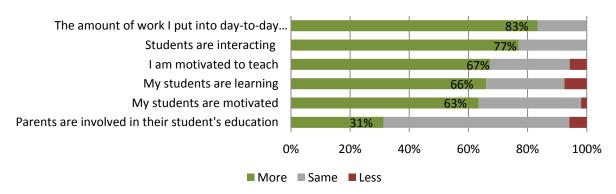
On average, staff at campuses that offered two-way classrooms rated overall program implementation higher than did staff at campuses that offered one-way only classrooms. Staff at campuses that provided two-way DL classrooms were more likely than were staff at other campuses to have discussed campus-wide plans for promoting bilingualism, biliteracy, cross-cultural competence, and grade-level achievement and how to articulate the DL program across the grade levels. This finding might be explained by the fact that two-way campuses have to devote activities toward the recruitment of non-ELL students into the program, which necessitates clear program planning. Research about the effectiveness of programs found that higher levels of articulation and planning were related to greater student success (Corallo & McDonald, 2002; Levine & Lezotte, 1995; Montecel & Cortez, 2002). According to Montecel and Cortez, program articulation should include expectations within and across grade levels and define appropriate scope, sequence, developmentally appropriate practices, and language proficiency expectations in both languages. DL teachers on campuses with two-way classrooms were more likely than were DL teachers on campuses with only one-way classrooms to report high comfort levels in providing DL instruction; teachers' comfort levels contributed to their outlook for the program.

Policy Implication: Program administrators should develop specific grade-level goals for the DL program so campus administrators can have targets to build their campus plans and have ways to articulate their plans to staff.

COMPARISON BETWEEN DL AND LTBE MODELS

DL teachers were asked to compare their experience teaching under DL and LTBE with respect to their students' and their own motivation, their workload, students' interactions, students' learning, and parental involvement. The results are presented in Figure 6.

Figure 6. Teachers' Comparisons of Their Experiences in the Dual Language Program, Compared With in the Bilingual Late Transition Model, 2010–2011



Source. Staff Dual Language Survey, Spring 2011

Although the vast majority of DL teachers (83%) perceived they were putting more work in day-to-day classroom activities in the DL program than they did in the LTBE program, most (67%) also reported being more motivated to teach. (Seven percent of the teachers who reported more work also indicated they were *less* motivated to teach.) Most teachers (77%) reported greater student interaction, learning (66%), and motivation (63%) in the DL program than in the LTBE program; a lower percentage of teachers (31%) noticed an improvement in parents' involvement with their student's education.

TWO-WAY PROGRAM

Fifteen of the 19 two-way teachers responded to the survey and were asked additional items related to classroom balance and effectiveness for Spanish and English students. Although a little more than half of respondents (53%) believed they had too few Spanish- or English-speaking students, two-thirds of the DL teachers (67%) felt the two-way program was as effective for their Spanish students as it was for their English students. When asked about the program's benefit, a majority of the respondents (64%) agreed or strongly agreed that their "Spanish students benefit more from the two-way program than do [their] English students."

STAFFS' SUGGESTIONS FOR AREAS FOR PROGRAM IMPROVEMENT

DL staff were asked an open-ended question regarding the three greatest areas needing improvement in the DL program. The top three responses provided by staff were availability of materials and resources (54%), training (40%), and time management (37%) (see Appendix Table C-4). Availability of materials and resources and training were areas of concern for a quarter of respondents (25%), who were potential DL staff for future implementation years (see Appendix Table C-5).

DL Materials and Resources

About half of staff surveyed (n = 328) agreed or strongly agreed that their "campus has sufficient supply of Spanish language materials and instructional resources"; this contrasted with 91% of surveyed

staff who agreed or strongly agreed that their "campus has sufficient supply of English language materials and instructional resources." Of the staff who taught in DL classrooms at the time of the survey, only 31% agreed they had sufficient Spanish resources, and 81% agreed they had sufficient English resources. Among materials mentioned the most by DL teachers as needed were Spanish science and social studies materials for the bilingual centers. One teacher noted, "Our Spanish language materials for science and social studies need to be better and more appropriate for our program. Also, we need more leveled materials that are trans-adaptations and not just translations." A couple of administrators mentioned the need for resources to be distributed equitably among schools and grade levels. Appendix Table C-6 provides a list of materials recommended by surveyed DL staff.

DL Professional Development Opportunities

DL teachers and administrators were asked items related to DL professional development opportunities. Appendix Table C-7 provides the DL training opportunities offered by AISD from June 2010 through April 2011. On the 4-point scale (1 = very low to 4 = very high), DL staff rated the quality of the DL training at 2.7. Among the four items on the professional development opportunity quality subscale, the items rated the lowest were training follow-through (2.5) and sufficient training (2.6). Forty-six percent of DL staff agreed or strongly agreed that "there has not been the follow-through that would help us correctly implement these strategies in the classroom." Thirty-nine percent agreed or strongly agreed that "teachers are not given enough training in how to properly implement the DL program."

Some DL teachers specifically requested more feedback on instructional delivery or opportunity to observe a "successful" DL settings. One teacher commented, "I feel much attention has been put into how (DL) environment should look; however, I believe I need training on how to teach the curriculum." Another teacher said, "The support and feedback needed in order to be able to successfully adjust classroom activities accordingly are absent…feedback on instructional delivery using lesson plan model…has not been available."

Other areas reported as needing improvement were time management, especially related to lesson planning and the bilingual centers, and the need for mentoring and teacher collaboration (23%). Although the district provided workshops throughout the year, one teacher suggested the "meetings should include time to plan for themes and activities." The majority of staff surveyed (79%) were willing to "be involved in more professional development to improve DL implementation at our school"; 14% did not respond to the item; and 6% were not willing to take professional development opportunities for improving DL.

Fidelity of the program related to availability and quality of DL training was a top concern among non-pilot teachers (25%). For example, one teacher said, "What I have seen in the past is a 'program' [that] is rolled out just before the school year starts. Teachers are not trained properly. Eventually, frustration sets in and everyone goes back to what they were doing before." The development of teachers' language proficiency was mentioned by some teachers, who requested courses aimed at improving teachers' language skills or improving Spanish CALP. Some non-pilot teachers also expressed an interest in opportunities to observe DL classrooms. A few non-BE/ESL teachers suggested training aimed at non-DL teachers so they would know how they and their students could support a DL campus.

Policy Implication: Teachers' perception of professional development opportunity follow-through may improve by providing workshops specific to DL instruction or lesson plans, by offering mentoring, or both.

TEACHERS' CONCERNS REGARDING IMPLEMENTATION OF THE DL PROGRAM

BE/ESL teachers at the 10 pilot schools and teachers at the 57 potential one-way or two-way DL elementary campuses were asked their concerns regarding DL implementation at their campus. The top concern of respondents was stakeholder buy-in and support for the DL program (Appendix Table C-5). Nearly a third of respondents (32%) mentioned the importance of administrators, teachers, and parents to actively support the program. Many respondents (14%) specifically addressed the need for or the current lack of campus administrator support. Some teachers reported that their principals openly voiced objection to or doubted the program. One teacher wrote, "I would love to be able to implement the DL program, but I am afraid my school will not be able to do it since our Principal thinks it does not work."

Teachers' concern with stakeholder buy-in was highly related to some teachers' concerns about program fidelity. Nearly a quarter of respondents (24%) questioned whether all AISD campuses that implement DL would be consistent with the tenets and goals of DL. As one teacher put it, "I am concerned that a lot of campus(es) will try to alter the program to 'fit' their campuses." Administrators' views on the appropriate program for ELLs might have influenced teachers' concerns regarding program fidelity, as illustrated by the following teacher's remark: "The big problem with our 'implementation' here is that the true goal of the program is to transition into English as early as possible without concern for their Spanish language skills."

Teachers also reported concern with program fidelity related to whether the district would make the long-term commitment to the program. As a teacher cited a "likelihood of front-loaded support...from both campus administrators and from the district, but little to no support later...Great programs are ruined and positive results are never fully realized because the campus and district administrators do not provide the follow through." With the district's budget deficit, some teachers also questioned whether sufficient funds existed to sustain the program's costs.

Conversely, some teachers commented on administrators and the district placing too much emphasis on the DL program. These teachers voiced concern about job security and the staffing implications of DL, especially for monolingual teachers. Twelve percent of respondents were worried about how the DL program would shape future staffing decisions or questioned the use of district funds to implement the program during a budget crisis.

Finally, some teachers, especially in the upper grade levels, mentioned their concern about student attrition, student mobility, and the impact of these factors on classroom balance and effectiveness (22%) or on the effectiveness of the DL program in general (19%). Most concerns were formed in questions or pointed out as unknowns (e.g., whether English-speaking students will stay in the program, how the program will function with fewer students, what happens if students enter the program in later grades, and what happens if a student switches from a one-way to a two-way program).

Other teachers' comments questioned the tenets of the Gómez and Gómez (1999) model. For example, one teacher commented, "It does not make sense to me that they will have science only in

Spanish." Another noted, "It is not appropriate to introduce instruction in a foreign language. We must build conceptual knowledge in their native language first." Another teacher said, "I'm worried that all students...in one-way or two-way DL won't be getting benefit of in-depth understanding of concepts...I feel that [when] the Spanish speakers aren't 'getting it,' I can pull them aside, immediately after the lesson, and do the lesson/explain/answer questions in their native language. I am afraid that DL and the 'language of the day' is going to rob me of this opportunity."

Policy Implication: Program managers can explore ways for staff to share with them their concerns regarding DL implementation and can create a publically accessible document that addresses the issues raised by staff.

PARENTS' RESPONSE TO THE DL PROGRAM

DL PARENT/GUARDIAN SURVEY

In late April and early May 2011, DRE administered a survey adapted from Lindhom-Leary's instrument (2001) to all parents and guardians of AISD DL students. One-way DL teachers were provided a Spanish version of the survey to send home with their students, while two-way teachers were provided both a Spanish and English version. Parents were given 2 weeks to complete the survey and return it to their child's teacher. An estimated 26% of DL parents (n = 374) participated from 49 of the 81 DL classrooms across all 10 pilot schools. Eighty-two percent of respondents used the Spanish form (n = 308), while 18% used the English form (n = 66). Eighty-six percent of respondents were mothers (n = 315); 9% were fathers (n = 32); 4% marked "Mother" and "Father" (n = 14); and 2% were other guardians (n = 7). Parents of students in the two-way program were overrepresented in the survey (i.e., two-way parents represented 36% of survey participants, although 24% of DL students were in the two-way program).

LANGUAGE AT HOME

Some students in the DL program live in households that speak two or more languages. Fifteen percent of respondents reported a household in which two (or three) languages were spoken frequently among parents and students (n = 55). Ten percent of the respondents reported that the mother spoke to the student primarily in a different language than the father (n = 38). Fifty-six percent of parents reported that their students were able to speak in L2 on a weekly basis with a close family friend (n = 209), 44% with their grandparent or other family member (n = 166), and 6% with a childcare provider or babysitter (n = 22). However, one in five parents (20%) did not report anyone outside school with whom their student was able to speak L2 on a weekly basis.

A little more than half of respondents (51%) had studied English or Spanish as a second language. Of those who studied L2, 31% studied the language for less than 1 year, 33% studied for between 1 and 3 years, 15% studied more than 3 years, and 21% did not specify. Figure 7 provides a description of parents' self-reported language proficiency in L2. Approximately 15% of respondents reported they could speak L2 very well. The percentage for proficiency in L2 was higher for English-dominant parents (47%) than for Spanish-dominant parents (12%).

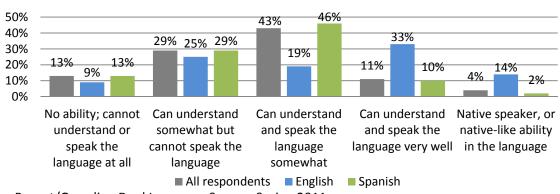


Figure 7. Parents' Self-Reported Second-Language Proficiency, by Native Language, Spring 2011

Source. Parent/Guardian Dual Language Survey, Spring 2011

PARENTS' SUPPORT FOR DL

Parents were asked 11 items regarding their general feelings about the DL program (see Appendix D). Although most parents responded favorably to all items, the lowest-rated items by parents were "The faculty and staff have been successful in promoting diversity and understanding among the school community" (3.44), followed by "I really encourage my child to speak Spanish/English outside of school" (3.45). Parents also were asked about their child's level of participation in activities outside the school environment (Figure 8).

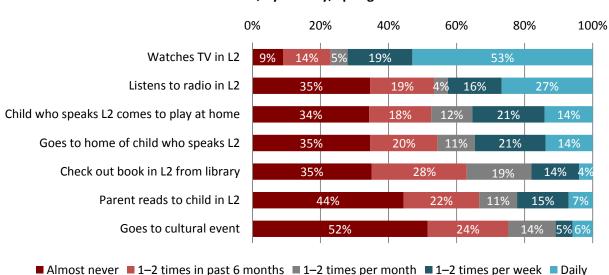


Figure 8. Frequency of Students' Second Language (L2) Engagement Outside School, as Reported by Parents, by Activity, Spring 2011

Source. Parent/Guardian Dual Language Survey, Spring 2011

According to parents' reports of their child's activities, the majority of students gain exposure to L2 outside school through media sources (i.e., television and radio). Students also gain exposure to L2 from playing with their L2-speaking peers; however, more than a quarter of parents (26%) reported that their child did not play with L2 peers either at their home or away. Students were least likely to have a book in L2 read to them or to go to a cultural event (within a 6-month period). Based on the activities students participate in most outside school, listening skills in L2 were the most likely to be reinforced, followed by speaking. Reading skills were the least likely to be supported outside school; however, more than a third of parents (34%) reported their child either checked out a L2 book from the library or was read to in L2 on at least a weekly basis.

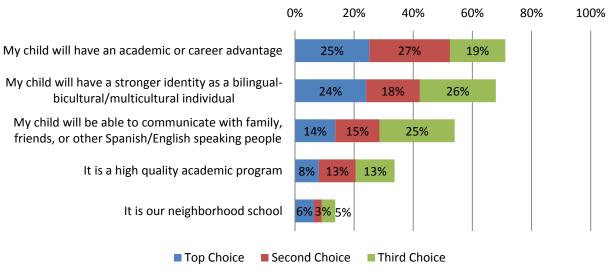
The highest-rated items by responding parents were "I am supportive of the dual language program my child is receiving at this school" (3.65) and "I would recommend this program to other parents" (3.63).

 $^{^2}$ The percentage of respondents who disagreed or strongly disagreed on any particular item ranged from 4% to 8%

The top-rated items may be due to selection bias because those parents and guardians who were more inclined to support the program may have been most likely to participate in the survey.

The parent survey asked parents and guardians to rank the three most important reasons they enrolled their child in the AISD DL program (Figure 9).

Figure 9. Parents' Top Three Reasons for Choosing the AISD Dual Language (DL) Program, Spring 2011



Source. Parent/Guardian Dual Language Survey, Spring 2011

Note. Percentages are based on total number of parent/guardian survey respondents (N = 374). The sum of percentages across choice do not equal 100% because responses were coded as missing if respondent checked all categories (the assumption was the respondent viewed all items as equal). If a respondent checked three or fewer categories, the responses were coded with equal weight and given the lower rank (e.g., if three choices were marked with no indication of rank, all three marked items were coded with a 3, indicating third choice.)

The most selected reason was "my child will have an academic or career advantage" (71%). The next most commonly selected reason was "my child will have a stronger identity as a bilingual-bicultural/multicultural individual" (68%). The third most commonly selected reason was "my child will be able to communicate with family, friends, or other Spanish-/English-speaking people" (54%).

STUDENTS' ORAL LANGUAGE PROFICIENCY

The Department of English Language Learners has defined four DL program outcome goals:

- 1. Students will develop high linguistic proficiency in two languages.
- 2. Students will develop high academic proficiency in two languages.
- 3. Students will develop positive cross-cultural attitudes.
- 4. Students will participate in a rigorous academic program that accelerates their learning.

In the pilot year, data were available for providing a baseline for the first goal of linguistic proficiency. A random sample of students from one-way DL classrooms and all students in two-way DL classrooms was assessed in Fall 2010 and Spring 2011 using the Language Assessment Scales (LAS) Links (2006) or *pre*LAS 2000 (Duncan& De Avila, 1998). Kindergarten and 1st-grade DL students also were assessed using the Texas English Language Proficiency Assessment System (TELPAS) in Spring 2011.

PRELAS 2000 AND LAS LINKS RATINGS

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 in 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 the average native speaker, by grade level (LAS Links) or age (preLAS).

The four domains assessed by the pre-LAS and LAS Links are listening, speaking, reading, and writing. For oral language proficiency, only the listening and speaking domains are used. Pre-K and kindergarten DL students were assessed for oral proficiency in both Spanish and English with the *pre*LAS, and DL 1st graders were assessed with the LAS Links. Table 5 describes the sample of DL students who were assessed, by grade level. The results have been weighted by DL program, school, and grade level to reflect the actual population of DL students.

Table 5. Actual Language Assessment Scales (LAS) Links and *Pre*LAS Sample of Dual Language Students, by Grade Level, 2010–2011

	One-way	Two-way		
	Spanish	Spanish	English	
Grade level	speakers	speakers	speakers	Total
Prekindergarten	166	17	28	211
Kindergarten	171	58	76	305
First grade	144	67	63	274
Total	481	142	167	790

Source. AISD student LAS Links/preLAS records

Figure 10 depicts DL students' estimated proficiency in L1 and L2 in Fall 2010 and Spring 2011. In Fall 2010, the majority of the pre-K sample (82%) were not proficient in English or Spanish; however, in Spring 2011, a 27 percentage point decrease in pre-K students who were neither L1 or L2 proficient was reported. For kindergarten, 36% entered the DL program not proficient in L1 or L2, and in Spring 2011, 21% were not proficient in either language, a 15 percentage-point decrease. For 1st grade, 19% of

students were not proficient in L1 or L2 in Fall 2010, compared with 5% in Spring 2011, a 14 percentage-point decrease. The percentage of sampled 1st graders who were bilingual (i.e., students who scored 4 or 5 in both languages) increased from pre- to posttest by 18 percentage points, resulting in more than a third of 1st graders orally proficient in both languages in Spring 2011.

The difference in the percentage of students in Fall 2010 who were not proficient in L1 and L2 by grade level suggests that a grade-level or age-level effect on language proficiency. However, without a control group, the LAS Links/preLAS data analysis did not reveal whether students' language proficiency progress could all be attributed to their participation in the DL program.

Spring 2011 Fall 2010 4%. <1% 1% 18% 55% Prekindergarten 82% 1% 1%_ 5% 21% 36% Kindergarten 58% 5% 19% First grade 62%

Figure 10. Students' Native Language (L1) and Non-Native Language (L2) Proficiencies, by Grade Level and Pre- and Posttests, 2010–2011

Source. AISD student LAS Links/preLAS records

Note. Percentages were based on a weighted sample of assessed DL students. Percentages do not add to 100 due to rounding. ■ Not proficient in L1 and L2; ■ L1 proficient, not proficient in L2; ■ orally proficient in L1 and L2 (bilingual); ■ possible assessment error. Students who scored 1, 2, or 3 on the LAS Links or *pre*LAS were not considered proficient in a language. Students who scored 4 or 5 were considered proficient. For English language learners (ELLs), L1 was Spanish and L2 was English; for non-ELLs, L1 was English and L2 was Spanish.

SECOND LANGUAGE PROGRESS AND GROWTH

The LAS Links and preLAS provide two ways to measure students' growth in language proficiency: proficiency levels and scale scores (*LAS Links Technical Manual*, 2005). Scale scores are

useful in providing a measure of growth over time, while proficiency levels (i.e., 5-point scale) use cutoff scores derived from the scale scores to measure whether a standard (i.e., level) has been reached.

LAS Links and preLAS scale scores can be converted into normal curve equivalent (NCE) scores to compare students' linguistic progress with a national sample of language-minority students. NCE scores have a mean of 50 and a standard deviation of 21.06 points (i.e., the national normal distribution of scores). When interpreting NCE average gain (or loss), note that a zero shows that the student's growth did not differ from the national average expected growth; a zero does not indicate "no growth." Deviations of ± 4 represent a significant growth (or loss), compared with national expected growth, and deviations of ± 11 represent a very high significant gain (or loss).

Table 6 provides DL students' average NCEs for pre- and posttests, by program and ELL status in the students' L2. Because the NCE scores are based on the language-minority student (e.g., native-Spanish speakers in English), Table 6 only provides NCE scores in the students' L2. The NCE scores provided by the preLAS and LAS Links in the students' L1s do not provide a good comparison for growth.

Table 6. Language Assessment Scales (LAS) Links and *Pre*LAS Normal Curve Equivalent (NCE) Results for English Language Learners (ELLs) and Non-ELLs, by Second Language (L2) and Grade Level, 2010–2011

	Avg. NCE	Avg. NCE	
	(Fall)	(Spring)	Avg. Gain
Prekindergarten			
One-way ELLs	13.6	32.7	19.2
Two-way ELLs	23.5	51.9	28.4
Two-way non-ELLs	19.2	33.9	14.7
Kindergarten			
One-way ELLs	30.0	46.3	16.3
Two-way ELLs	39.6	57.8	18.2
Two-way non-ELLs	14.2	31.5	16.8
First Grade			
One-way ELLs	43.9	55.0	10.8
Two-way ELLs	55.5	66.5	11.1
Two-way non-ELLs	16.3	22.1	5.8

Interpretation of Normal Curve Equivalent (NCE) Scores						
Range of performance	NCE scores	National percentile				
Very low	1-24	1–11				
Low	25-35	12–25				
Low average	36-44	26–39				
Average	45-55	40–60				
High average	56-64	61–74				
High	65-75	75–88				
Very high	76-99	89–99				
Source. Southard, 2006						

Source. AISD student LAS Links/preLAS records

Note. Averages were based on a weighted sample to reflect the DL student population. Average gain was based on averaged individual students' gain and not the difference in average Spring NCE and average Fall NCE scores.

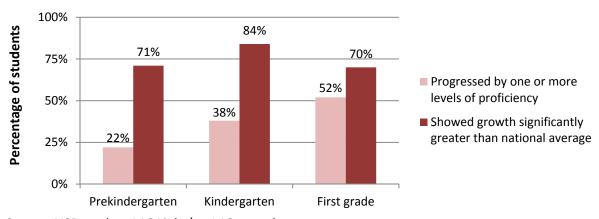
Although 1st-grade non-ELLs showed the lowest growth among pilot students, all pilot groups across all grades did have growth in L2 greater than the expected growth, on average (i.e., national average for minority-language learners). According to ANOVA *t*-tests, kindergarten and 1st-grade ELLs, on average, entered Fall 2010 with significantly higher L2 proficiency than did non-ELLs. It is possible that the 2010–2011 year was the first year many non-ELLs were in a language program of any kind, especially in the 1st-grade comparison group, while most ELLs may have been in a language program in

their second or third year. More 1st-grade non-ELLs scored *beginner* in L2 than did 1st-grade ELLs; 81% of 1st-grade non-ELLs scored 1 in Spanish, compared with 31% of 1st-grade ELLs who scored 1 in English. In pre-K, no significant difference was found in L2 proficiency between one-way ELLs and two-way non-ELLs. However, two-way ELLs had significantly higher L2 proficiency than did one-way ELLs for all the pilot grade levels. Two-way ELLs also had significantly higher growth in L2 than did one-way ELLs for pre-K through 1st grade and two-way non-ELLs in pre-K and kindergarten.

Policy Implication: Non-ELLs entering a language program for the first time should be placed in DL no later than 1st grade. Thus, pre-K through 1st grade should remain the only grade levels in elementary in which non-ELLs are recruited into the DL two-way program.

Figure 11 shows students' L2 proficiency using measures of growth provided by the LAS Links and pre/LAS. The light red bar depicts the percentage of students who progressed in L2 proficiency by one or more levels, and the dark red bar indicates the percentage of students whose growth was significantly greater than the national average according to their gains in NCEs.

Figure 11. Students' Progress and Growth in Second Language (L2) Proficiency, by Grade Level, 2010–2011



Source. AISD student LAS Links/preLAS records

Note. The percentages were based on a weighted sample.

Although the majority of DL students had growth greater than the national average in L2 across all pilot grade levels, the percentage of students obtaining a higher proficiency rating differed by grade level. The lower percentage of students progressing by proficiency levels in pre-K and kindergarten most likely was related to the higher percentage of students in those grade levels who were not proficient in L1. Previous research on AISD pre-K indicated that many entering pre-K students were not strong in their L1 vocabulary (Brunner, 2009 a). On average, it takes students 2 years to become orally proficient in L2 (Lindholm-Leary, 2001). To be "on average," a student must score a 50 NCE in L2 proficiency. According to the pilot year preLAS results (Table 6), the average AISD pre-K or kindergarten ELL might take

approximately 2 years to be in the national average range of a L2 learner. Thus, in 1st grade, a greater percentage of Spanish ELLs showed progress in English language proficiency than did other grade levels.

Policy Implication: DL program expectations for language proficiency in the early grade levels should include L1 proficiency. Administrators might consider adopting tiered goals based on grade-level expectations, years in a language program, or both.

Because most of entering ELLs in pre-K and kindergarten were not strong in L1 proficiency, focus should be placed on strengthening L1 and elevating students to the average range in NCE scores in L2. For 1st grade, it is reasonable to expect that 50% of students will progress by one or more proficiency levels. If ELLs continue to progress in the average range in L2 growth, by the end of 3rd grade the majority of DL ELLs should be orally proficient in English.

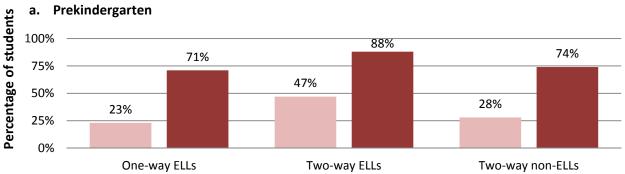
Not enough data are available to project the reasonable length of time pilot non-ELLs will take to become orally proficient in Spanish, especially those who began in 1st grade. However, if growth for pre-K and kindergarten non-ELLs remains similar to that for one-way ELLs, it is possible for most non-ELLs to be bilingual within 4 years (or possibly less, depending on the proficiency level of the non-ELLs in English). Administrators may want to consider setting language proficiency goals for the 1st-grade non-ELL cohort so they are similar to standards for pre-K and kindergarten DL students, thereby taking into account some students' limited L2 exposure.

SECOND LANGUAGE PROGRESS AND GROWTH, BY PROGRAM PARTICIPATION

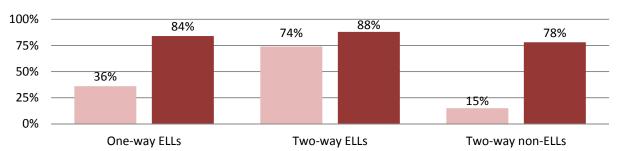
DRE staff also examined students' growth and progress in L2 in relation to their one-way and two-way program participation (Figure 12). DRE staff used logistic regression to control for students' Fall 2010 L1 and L2 proficiency. The percentages of students who had greater than expected growth did not significantly differ in pre-K and kindergarten by program type (i.e., one-way versus two-way). In 1st grade, no difference was found with respect to the probability of 1st-grade ELLs progressing in English by one or more proficiency levels by program type. However, ELLs' higher fall proficiency in L2 English contributed to the greater probability of ELLs exceeding the national average in growth, compared with the probability for non-ELLs. This relationship also was found with respect to the difference between 1st-grade ELLs and non-ELLs who progressed by one or more levels in L2. The higher L2 proficiency for 1st-grade ELLs most likely was related to years in the language program.

Suggestion for Further Research: Prior to 2010–2011, some pilot 1st-grade ELLs may have participated in the LTBE model for as long as 2 years, during which more instruction time was devoted to L1 (i.e., Spanish) than to L2. To understand differences in the program prior to 1st grade, further research should examine the differences in growth of the pilot kindergarten and pre-K cohorts. Comparisons between the 1st-grade cohort and the pre-K cohort when they reach 1st grade will provide some understanding about the effect of a varying degree of L1 instruction in the early years of school (i.e., proxy 90:10 versus 50:50 model).

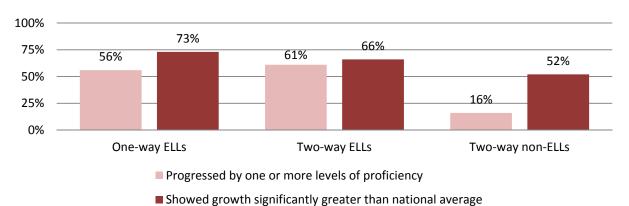
Figure 12. Dual Language Students' Progress and Growth in Second Language (L2), by Program and Grade Level, 2010–2011



b. Kindergarten



c. First grade



Note. The percentages were based on a weighted sample.

Source. AISD student LAS Links/preLAS records

For pre-K, no difference was found between the percentage of students who progressed one or more levels in oral proficiency in the one-way program and the percentage of students who progressed one or more levels in oral proficiency in the two-way program, when controlling for Fall L1 proficiency. In other words, for pre-K students, progress in L2 proficiency was related to students' proficiency in L1 prior to starting the program rather than related to whether they participated in a one-way or two-way program.

For kindergarten, two-way ELLs were significantly more likely to progress by one or more level in L2 than were two-way non-ELLs, even after controlling for Fall 2010 L1 and L2 proficiency levels. Non-ELLs' Fall 2010 Spanish proficiency level significantly contributed to their progress in Spanish (i.e., non-ELLs who came into the program with a stronger background in Spanish were more likely to progress by one or more levels in Spanish proficiency than were non-ELLs entering the program with less Spanish). No significant difference was found in the probability of one-way ELLs and two-way non-ELLs progressing by one or more proficiency levels, when controlling for their Fall English proficiency. Similarly, no difference was found in the probability of one-way ELLs and two-way ELLs progressing by one or more proficiency levels, when controlling for Fall L2 proficiency. In other words, the data suggest that one-way ELLs and two-way non-ELLs with similar proficiency levels in L2 advanced nearly the same in L2 proficiency. However, more two-way ELLs than two-way non-ELLs progressed in L2 proficiency, even if they started at the same level in L2 proficiency. It is possible that two-way ELLs received more English exposure outside school than did two-way non-ELLs in Spanish; however, without further evidence (e.g., linking parent survey data to student data), this hypothesis cannot be tested.

Policy Implication: Because non-ELLs' performance in oral language proficiency was based on Fall 2010 L2 proficiency, campuses might provide entering cohorts of two-way non-ELL students with resources and materials to help parents provide Spanish language exposure to their child in the summer months prior to school. Campuses should continue to help all parents throughout the year so they can support their child in L2, especially those parents with a limited L2 background.

TEXAS ENGLISH LANGUAGE PROFICIENCY ASSESSMENT SYSTEM (TELPAS) RESULTS

In Texas, ELL's proficiency is assessed annually using the TELPAS for kindergarten through 12th grade. The Texas Education Agency (TEA) examines year-to-year change in students' TELPAS scores to determine if districts met Annual Measureable Achievement Objectives (AMAOs) in language proficiency.

The four domains assessed by the TELPAS are listening, speaking, reading, and writing. Students receive a proficiency score and rating (i.e., beginning, intermediate, advanced, advanced high) on each domain. Students' scores on the TELPAS language domains are weighted in the following manner to create a composite score: listening 5%, speaking 5%, reading 75%, and writing 15%. The district's kindergarten and 1st-grade ELLs' 2010–2011 composite ratings are provided in Table 7.

Table 7. English Language Learners (ELLs) in Bilingual Education Program's Texas English Language Proficiency Assessment System (TELPAS) Composite Ratings, by Program and Grade Level, 2010–2011

	Number	TELPAS	TELPAS	TELPAS	TELPAS advanced
Program	of ELLs	beginning	intermediate	advanced	high
Kindergarten					
One-way DL	334	86%	10%	*	*
Two-way DL	62	87%	11%	*	*
Late-transitional	2,034	83%	13%	4%	1%
First grade					
One-way DL	316	57%	28%	11%	5%
Two-way DL	74	30%	28%	31%	11%
Late-transitional	1,938	54%	29%	12%	5%

Source. AISD TELPAS records

Notes. "DL" is the acronym for dual language. * indicates fewer than 5 students. Late-transitional only included Spanish-speaking ELLs.

Although DL students were only tested in speaking and listening domains with the LAS Links and preLAS, ELLs also were tested in reading and writing with TELPAS. The data in Table 7 are presented to describe students' performance only. These data are not based on matched comparisons, so program effects cannot be extrapolated.

Annual Language Proficiency Progress

TEA examined year-to-year change in students' TELPAS scores for all students who were enrolled on the PEIMS snapshot date in Fall 2010 and who had Spring 2011 TELPAS scores. For each student who met these criteria, TEA calculated a yearly progress indicator based on change in students' TELPAS composite ratings from Spring 2010 to Spring 2011. The resulting yearly progress indicator scores ranged from 0 (no change or a decline) to 3 (an increase of three composite levels); if students' ratings were advanced high in both years, then the yearly progress indicator was marked as 1 (one level higher). To meet AMAO standards, at least 47% of district ELLs in kindergarten through 12th grade must have earned a yearly progress indicator of 1 or higher (i.e., students must have progressed by at least one proficiency level or maintained a rating of advanced high from year to year). Figure 13 provides the percentage of students in each type of program who progressed on TELPAS by one or more levels.

100%
75%
40%
39%
25%
One-way ELLs
Progressed by one or more levels of proficiency

Two-way ELLs
Progressed by one or more levels of proficiency

Figure 13. First-Grade English Language Learners (ELLs) Who Progressed on the Texas English Language Proficiency Assessment System (TELPAS) by One or More Levels, by Program, 2010–2011

Source. AISD student TELPAS records

Note. Late-transitional only included Spanish-speaking ELLs. The dotted blue line represents the Annual Measurable Achievement Objective (AMAO) for yearly TELPAS progress. The AMAO was based on all grade levels and did not need to be met by particular grades.

Significantly more two-way ELLs than one-way ELLs or LTBE Spanish ELLs progressed in English, as indicated by TELPAS. No significant difference was found in the percentage of one-way DL and LTBE Spanish ELLs who progressed on TELPAS.

TELPAS Proficiency by Language Domain

In addition to providing composite language proficiency scores, the TELPAS provides ratings for each of four language domain skills (i.e., listening, speaking, reading, and writing). Figure 14 provides the average ratings by domain and the average composite scores by grade level for all Spanish ELLs in a BE program who took the TELPAS in the school in which they were enrolled in Fall 2010.

Domain and Program, 2010–2011 Kindergarten a) 3 1.99 2.03 1.89 1.73 2 1.54 1.47 1.03 1.15 1.19 1.25 1.25 1.28 1.2 1.16 1.23 1 Listening Speaking Reading Writing Composite b) First Grade 3.12 2.96 2.23 2.29 2.45 2.27 1.98 1.94 1.92 <u>1.</u>69 1.72 1.64 1.68

Figure 14. Texas English Language Proficiency Assessment System (TELPAS) Ratings, by

Domain and Program, 2010–2011

Source. AISD student TELPAS records

Listening

1

Note. TELPAS ratings are 1 = beginner, 2 = intermediate, 3 = advanced, and 4 = advanced high

■ Two-way DL

Speaking

■ One-way DL

Reading

1.52

Composite

1.41

Writing

■ Late-transitional BE

In general, kindergarteners in the two-way and one way DL programs had higher ratings in listening than did Spanish ELLs in the LTBE program.³ Two-way ELLs performed better in speaking, on average, than did one-way or LTBE ELLs. LTBE ELLs, however, had significantly higher ratings on writing than did ELLs in the one-way program. Overall, no significant difference was found in ELLs' composite rating for the various programs.

A significant difference was found on the composite ratings for 1st-grade ELLs in the different program types. Two-way DL ELLs had higher ratings, on average, in all domains than did ELLs in the one-way DL or LTBE programs. Two-way ELLs did significantly better than did other Spanish BE ELLs in reading, which accounted for 75% of the TELPAS composite score. Strong performance in reading most likely contributed to the higher percentage of 1st-grade two-way ELLs who progressed by one level or more in English proficiency (Figure 14 b). This finding is consistent with research by Collier and Thomas (2009), who reported generally better results for students in a two-way DL program in content area knowledge in L2. Similar to the results for kindergarteners, one-way DL ELLs had significantly higher ratings in listening than did Spanish ELLs in LTBE, while Spanish ELLs in LTBE scored significantly higher in writing than did ELLs in the one-way DL program.

Policy Implication: The pilot year TELPAS data suggest that two-way DL might be more effective than other BE programs in helping Spanish ELLs progress in English reading ability. However, these findings were based on students who most likely were in a LTBE program for their kindergarten (and possibly pre-K) year(s).

The data further suggest that the earlier exposure to English in the one-way DL program, compared with in the LTBE program, might promote ELLs' increased ability to understand spoken English. However, ELLs in the one-way DL program might need more practice with writing in English. Although journaling time in the LOD is encouraged by the Gómez and Gómez (1999) model, fidelity to this component might not be strong. DRE staff did not have program fidelity measures, and therefore could not conclusively make this link.

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³ These comparisons were not based on matched data. No schools in the DL program had an unacceptable state rating.

FISCAL CONSIDERATIONS

The DL programs were supported through the use of federal funds granted through the American Recovery and Reinvestment Act (ARRA) Title I, A. During the 2010–2011 pilot year, a total of approximately \$1,055,165 (as of August 31, 2011) was used to implement the DL program. This amount averaged to approximately \$744 per student served. Figure 15 provides a breakdown of expenditures according to function code.

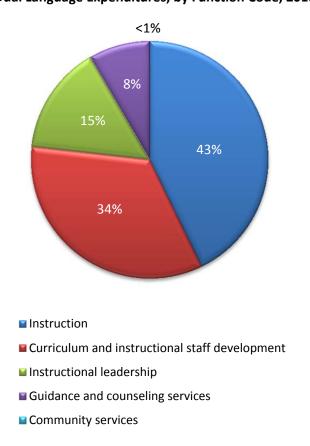


Figure 15. Dual Language Expenditures, by Function Code, 2010-2011

Source. AISD fiscal records as of August 31, 2011

Note. Under guidance and counseling services, the cost was for student assessment.

CONCLUSION

Although previous research (Collier & Thomas, 2009; Lindholm-Leary, 2001) has shown the effectiveness of the DL program at the national level, a longitudinal perspective is required to understand how the implemented DL program will affect the ELL achievement gap within AISD. A challenge for any implemented program will be fidelity to its requirements, which depends on its stakeholders' commitment to delivering the program as intended. AISD should continue to educate the community about the benefits of the DL program and investigate strategies to improve and refine the program for its population of students. In addition to providing well-defined program requirements and objectives, program managers need to monitor for program's drift and address any unintentional variation from the DL program design (O'Conner, Small, & Cooney, 2007). AISD also should continue to monitor the performance of DL students and adapt the program accordingly to ensure program success.

APPENDICES

Appendix A

Table A-1. New Dual Language Designated Campuses, 2011–2012

School	Implementation	School	Implementation
Allan	One-way	МсВее	One-way
Allison	One-way	Menchaca	Two-way**
Andrews	One-way	Mills	-
Baldwin	-	Norman	One-way*
Barrington	One-way	Oak Hill	One-way
Baranoff	-	Oak Springs	One-way*
Blackshear	One-way*	Odom	One-way
Blanton	One-way	Overton	One-way
Boone	-	Palm	One-way
Brentwood	Two-way**	Patton	-
Brooke	One-way*	Pecan Springs	One-way
Brown	One-way/Two-way**	Pillow	One-way*
Campbell	One-way*	Pleasant Hill	One-way
Casey	One-way*	Read	One-way
Cunningham	Two-way**	Reilly	One-way
Davis	-	Rodriguez	One-way
Doss	-	St. Elmo	One-way
Galindo	One-way	Sims	One-way*
Govalle	One-way	Summitt (Vietnamese)	One-way
Graham	One-way	Summitt (Spanish)	One-way*
Harris	One-way	Sunset Valley	One-way/Two-way
Hart	One-way	Travis Heights	One-way/Two-way
Houston	One-way	Walnut Creek	One-way
Jordan	One-way	Widen	One-way
Joslin	One-way	Williams	One-way*
Kocurek	One-way*	Wooldridge	One-way
Langford	One-way	Zavala	One-way
Linder	One-way	Zilker	Two-way
Maplewood	Two-way**		

Source. AISD Department of English Language Learners

Note. Table contains all schools surveyed for the AISD Dual Language Staff Survey in Spring, 2011. Campuses missing a DL program implementation had too few Spanish ELLs for a BE program and will provide ESL. Campuses offering ESL only for 2011–2012 include Baldwin, Baranoff, Barton Hills, Boone, Bryker Woods, Casis, Clayton, Cowan, Davis, Doss, Gullett, Highland Park, Hill, Kiker, Lee, Mathews, Mills, Patton, and Pease Elementary Schools.

^{*} indicates that the one-way program will be modified to accommodate the small number of Spanish ELLs at that campus.

^{**} indicates that the two-way program is campus based only.

Appendix B

Table B-1. Dual Language Program Staff-to-Student Ratios, by Grade Level, 2010–2011

	Prekindergarten	Kindergarten	First Grade
One-way			
Blazier	1:13	1:17	1:20
Dawson	1:16	1:15	-
Ortega	1:20	1:14	1:13
Perez	1:18	1:18	1:19
Pickle	1:16	1:18	1:20
Ridgetop	1:17	-	-
Sanchez	1:15	1:17	1:18
Winn	1:17	1:21	1:15
Wooten	1:18	1:21	1:18
Two-way			
Becker	1:17	1:17	1:18
Perez	-	1:21	1:20
Ridgetop	-	1:17	1:19
Wooten	1:15	1:22	1:16

Source. AISD student enrollment records

Appendix C - Dual Language Staff Survey Items

Items coded: 4 = strongly agree, 3 = agree, 2 = disagree, 1 = strongly disagree

General Support for Dual Language

- I believe the dual language program is effective for helping students learn language.
- I believe the dual language program is effective for helping students learn academic knowledge and skills.

Campus Climate Toward Language Diversity

- Our campus is committed to serving the needs of our ELL students.
- All languages are equally valued throughout our campus.

High Academic Expectations for All Students

- Some students are not going to make a lot of progress this year no matter what I do. (reverse coded)
- At-risk students should be given assignments they can learn from even if they will have difficulty.
- ELL students are capable of grade level performance with high level of instruction.
- It is better to give students work that is too easy than too hard. (reverse coded)
- I can deal with most students' learning problems. (Teachers only)
- ELLs with special needs (i.e., require special education services) cannot be taught in a dual language classroom. (reverse coded)

Promotion of Cooperative Learning

- I use cooperative academic activities or games with mixed ability level groups.
- Students should be grouped based on **similar** abilities. (reverse coded)
- I encourage students to ask other students to help them with their work. (Teachers only)

Reinforcement of Language Development

- During content instruction, I respond to students' questions and answers even if they use the other language. (reverse coded)
- I correct students' attempts at communication if they are expressed incorrectly.

Campus Implementation (Pilot schools only)

Foundation Building

- We have a campus-wide plan for promoting bilingualism, biliteracy, cross-cultural competence and grade-level achievement.
- We have developed language objectives by grade level.
- As a campus, we have discussed how to articulate the dual language program across the grade levels.

Teamwork

- Dual language teachers do not spend enough time as a group or team to plan for instruction.
 (reverse coded)
- Dual language teachers work well together in instructional teams.
- Teachers plan together and coordinate the development of linguistic skills in **both** languages.

Campus-wide Integration

- I feel that non-dual language staff actively engage the dual language program.
- I feel that 2nd through 5th grade teachers in my school are highly invested in the dual language program.
- Our (team leader, instructional coach, principal) encourages communication among teachers in dual language and non-dual language.

Teacher Outlook

- I am satisfied with the way the current dual language program is operating. (Only DL teachers)
- I am comfortable providing dual language instruction in my classroom. (Only DL teachers)

Campus Leadership Support for Dual Language

- Our (team leader, instructional coach, principal) is knowledgeable about the dual language program.
- Our (team leader, instructional coach, principal) is a good resource for the information about program implementation.
- Our (team leader, instructional coach, principal) supports the goal of students having high linguistic proficiency in two languages.
- Our (team leader, instructional coach, principal) supports the goal of students having high academic proficiency in two languages.
- Our (team leader, instructional coach, principal) supports the goal of students having positive cross-cultural attitudes or biculturalism.

Late-Transitional Bilingual Education Comparison

Compared to last year (i.e., 2009-2010) when you taught in a bilingual late transition model, please indicate the change in degree for the following statements as applied to this school year (i.e., 2010-2011).

- The amount of work I put into day-to-day classroom activities is (more, same, less).
- My students are learning (more, same, less).
- My students interact with each other (more, same, less).
- My students are motivated (more, same, less).
- I am motivated to teach (more, same, less).
- Parents are involved in their student's education (more, same, less).

Two-way program

- We have an effective two-way dual language program on our campus for Spanish students.
- We have an effective two-way dual language program on our campus for English students.
- There are too few Spanish students in my classroom.
- There are too few English students in my classroom.
- I find my Spanish students benefit more from the two-way program than do my English students.
- I feel comfortable working with parents of my ELL students.

Resources

- Our campus has sufficient supply of **Spanish** language materials and instructional resources.
- Our campus has sufficient supply of English language materials and instructional resources.
- On your campus, who decides how funds should be spent on dual language resources?
 - o Principal (or other administrator) solely makes decisions.
 - o Teachers collectively make the decision with administrator input.
 - o Teachers collectively make the decision without administrator input.
 - o Each teacher makes decisions independently of one another (i.e., funds are distributed per classroom).
 - o Other, please explain.

Dual Language Professional Development Quality

- While teachers have received training in dual language, there has not been the follow-through that would help us correctly implement these strategies in the classroom. (reverse coded)
- Teachers are not given enough training in how to properly implement the dual language program. (reverse coded)
- Dual language teachers are given too much training that it is difficult to incorporate what is learned into our teaching. (reverse coded)
- I have a good understanding of how to provide dual language instruction in my classroom.

Professional Development Need Assessment

- I need more training in how to work with ELL students.
- I am willing to be involved in more professional development to improve dual language implementation at our school.
- My Spanish Cognitive Academic Language Proficiency (CALP) in science is well-developed.
- My English Cognitive Academic Language Proficiency (CALP) in math is well-developed.
- Have you taken content area coursework taught in Spanish or other non-English language?

Open-ended questions

- What are the top three curriculum resources that have been the most valuable to dual language instruction? Please explain your answer. (DL teachers and administrators)
- What are the three greatest strengths of the dual language program? Please explain your answer. (DL teachers, administrators)
- What are the three greatest areas needing improvement in the dual language program? Please explain your answer. (DL teachers, administrators)
- What are your top 3 concerns or questions about implementing the dual language program at your school? Please explain your answer. (Non-pilot teachers, administrators)

Figure C-1. Description of Staffs' Coursework Background in Non-English Language



Source. AISD Staff Dual Language Survey, Spring 2011

Note. Percentages sum to greater than 100% due to rounding.

Table C-2. Teachers' and Administrators' Responses to the Open-ended Item "What are the three greatest strengths of the dual language program?"

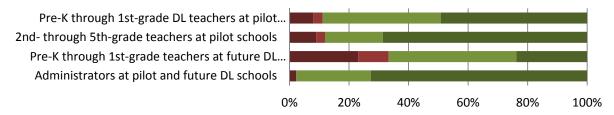
Strength	Example of response	Percentage	
Biculturalism	Value of other cultures, learn about cultures different from their	33%	
	own, creating tolerance that will persist into their adulthood		
High academic rigor	Higher level thinking and learning, high academic expectations,	29%	
	rigorous instruction for both language learners	2570	
Cooperative	Bilingual pairs, work in groups and partners, positive		
learning/community building	interdependence amongst students, working collectively	29%	
Equal value of	Equal respect and appreciation for two languages, equally valuing	23%	
languages	both languages, promoting both Spanish and English equally	23/0	
	Students feel proud of being bilingual, empowering all students and		
Student confidence	giving them sense of value, Spanish speakers feel more confident	11%	
	speaking English with partners		

Source. AISD Staff Dual Language Survey, Spring 2011

Note. Percentages sum to more than 100% because respondents were allowed to comment on three concerns. The percentages are based on the percentage of item respondents (n = 73) whose answer fit in a particular category or theme determined through content analysis.

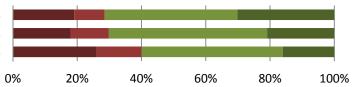
Figure C-3. Teachers' Perception of Campus Leadership Support, by Position

a) Principal supportive of dual language (DL) program

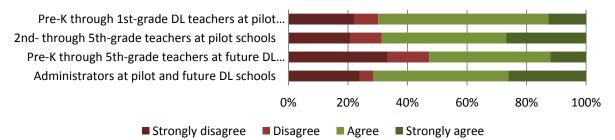


b) Grade-level team leader supportive of DL program

Pre-K through 5th-grade DL teachers at pilot schools 2nd- through 5th-grade teachers at pilot schools Pre-K through 5th-grade teachers at future DL schools



c) Instructional coach supportive of DL program



Source. AISD Dual Language Survey, Spring 2011

Note. Not all campuses have an instructional coach. Administrators were not asked questions about grade-level team leaders. Sample included: pre-K and 1st-grade DL teachers at pilot schools (n = 63); 2nd- through 5th-grade teachers at pilot schools (n = 67); pre-K through 5th-grade teachers at future DL schools (n = 567); and administrators at pilot and future DL schools (n = 88).

Table C-4. Teachers' Responses to the Open-ended Item, "What are the top 3 areas needing improvement in the dual language (DL) program?"

Concern	Example of response	Percentage
Availability of resources/materials	Lack of science and social studies resources in Spanish, funding for materials provided by district, bilingual centers	54%
Training	Spanish classes for staff, how to effectively implement bilingual centers, how to grade ESL block, opportunity to observe successful DL classrooms	40%
Time management	Not enough time to plan, not enough time for content instruction due to room changes, no time to create materials/lessons, time for collaboration among teachers	37%
Campus/parent support	More Spanish parent support, more education for non-DL teachers, staff and parents, language of the day school-wide support, knowledgeable curriculum specialists	31%
Mentoring	Mentors, collaboration with DL teachers across district	23%
Classroom balance	Balance of English and Spanish students, shared students between teachers	17%
Lesson plans	Lesson plan formants, alignment with English Language Proficiency Standards (ELPS), themes and activities for bilingual centers	17%

Source. AISD Staff Dual Language Survey, Spring 2011

Note. Percentages sum to more than 100% because teachers' were allowed to comment on three concerns. The percentages are based on the percentage of item respondents (n = 35) whose answer fit in a particular category or theme determined through content analysis.

Table C-5. Teachers' Responses to the Open-ended Item, "What are your top three concerns or questions about implementing the dual language (DL) program at your school?"

Concern	Example of response	Percentage
Buy-in and support	Administrative support, teacher buy-in, non-DL staff and student participation, parental involvement	32%
Availability of resources/materials	Lack of science and social studies resources in Spanish and Vietnamese, equity of distribution of materials, funding/cost of materials	25%
Training	Number of offerings during the year, location and time of trainings, training provided to non-DL teachers on how to support campuswide DL, classes offered to develop academic Spanish	25%
Fidelity of the program	Consistency among campuses, sustainability of program funding, permanence of program in district	24%
Classroom balance/participation	Balance of English and Spanish students in a two-way program in upper grades, effects of student mobility on program, how to include students who participate in special education programs, Large class sizes, not enough students, high number of students with low proficiency in native language	22%
Success/benefits questioned	Students should transition to English quickly, science taught in Spanish only, how are benefits different from late-exit transitional, students might fall behind	19%
Staffing implications	Will district have preference for BE teachers, DL creates a job risk for monolingual teachers, district should not implement new program with budget crisis	12%
Time management	Work load will increase, time devoted to two language arts periods, DL centers take too much time, ability to accomplish all the DL requirements	8%
Accountability	Implementation of new program and STAAR, how will DL be monitored for effectiveness, will students pass STAAR in English by 6th grade	8%

Source. AISD Staff Dual Language Survey, Spring 2011

Note. Percentages sum to more than 100% because teachers' were allowed to comment on three concerns. The percentages are based on the percentage of item respondents (n = 400) whose answer fit in a particular category or theme determined through content analysis.

Table C-6. Dual Language Staff Responses to the Open-ended Item, "What are the top 3 curriculum resources that have been the most valuable to dual language instruction?"

Resources	Percentage
Science materials/centers	33%
Gomez & Gomez materials (online and handbook)	18%
Kagan Cooperative Learning Strategies	13%
Eduspark	13%

Source. AISD Staff Dual Language Survey, Spring 2011

Note. The percentages are based on the percentage of item respondents (n = 39) whose answer fit in a particular category or theme determined through content analysis. Other items mentioned by DL staff included Lakeshore Math, Envision Math, Abrams Big Books, room labels, Tesoros de lectura, Freeman Dual Language essentials, Innovation Station, and Mentoring Minds Educational Wheels.

Table C-7. AISD Dual Language Professional Development Opportunities and Attendance, June 2010,
Through April 2011

Title of session	Number of staff who attended
Dual Language Training Institute	148
Dual Language Training Institute: for kindergarten and 1st-grade teachers only	204
Dual Language Training Institute: for administrators	39
Dual Language Training Institute: for 2nd-grade teachers (10 pilot schools)	68
Dual Language Training Institute: follow-up training for two-way	7
Dual Language Training Institute: follow up for 1st-grade teachers	19
Dual Language Training Institute: follow up for kindergarten teachers	18
Dual Language Training Institute: follow up for pre-K teachers	20
Dual Language Training Institute: follow-up session # 2 for 1st-grade teachers	23
Dual Language Training Institute: follow-up session # 2 for kindergarten teachers	27
Dual Language Training Institute: follow-up session # 2 for pre-K teachers	15
Dual Language Training Institute: follow-up session # 3 for 1st-grade teachers	24
Dual Language Training Institute: follow-up session # 3 for kindergarten teachers	20
Dual Language Training Institute: follow-up session # 3 for pre-K teachers	17
Dual Language Training Institute: planning session	75
Dual Language Training Institute: follow-up session # 5 for 1st-grade teachers	20
Dual Language Training Institute: follow-up session # 5 for kindergarten teachers	18
Dual Language Training Institute: follow-up session # 5 for pre-K teachers	6
Dual Language Training Institute: KAGAN cooperative learning 10 pilot schools	73

Source. AISD staff professional development session records

Appendix D - Dual Language Parent Survey Items

I. Language Background Information

- 1. Your relationship to child enrolled in the dual language program: Mother; Father; Other, please specify
- 2. Please place an "X" under the language (English; Spanish; Other, please specify) most often used in the home: You to child (if not parent); Mother to child; Father to child; Parents to each other
- 3. Please check below your own ability to communicate in Spanish.
 - a. No ability; cannot understand or speak the language at all.
 - b. Can understand somewhat but cannot speak the language.
 - c. Can understand and speak the language somewhat.
 - d. Can understand and speak the language very well.
 - e. Native speaker, or native-like ability in the language.
- 4. Have you ever studied Spanish (English in the Spanish survey version)? Yes; No; If yes, how long?
- 5. What are the *three most important reasons* for enrolling your child in the dual language program? (Put a "1" next to the MOST important, "2" next to the SECOND most important, and "3" next to the THIRD most important.)
 - a. It is our neighborhood school.
 - b. It is a high quality academic program.
 - c. My child will be able to communicate with family, friends, or other Spanish speaking people.
 - d. My child will have an academic or career advantage.
 - e. My child will have a stronger identity as a bilingual-bicultural/multicultural individual.
- 6. Please check below if your child has frequent (at least weekly) access to individuals who <u>speak Spanish</u> (English in the Spanish survey version):
 - a. Grandparent/Other family members
 - b. Babysitter/child care
 - c. Close family friends

II. General Opinions

Please indicate how strongly you agree or disagree with the following statements. (Please, check only one answer for each statement. If you accidently mark two answers, please scratch out wrong response and use a larger "X" for your response.) Items coded: 4 = strongly agree, 3 = agree, 2 = disagree, 1 = strongly disagree

- 7. I am satisfied that the school is giving my child access to the subject matter that s/he needs.
- 8. I am satisfied that the Dual Language Program is giving my child access to the subject matter that s/he needs.
- 9. Hispanic students, parents, staff and community members are made to feel like a valuable part of our school culture.
- 10. The faculty and staff have been successful in promoting diversity and understanding among the school community.
- 11. The faculty and staff are successful in balancing the needs and concerns of both English and Spanish speaking communities.
- 12. I am supportive of the dual language program my child is receiving at this school.
- 13. I enjoy the ethnic and linguistic diversity in our school and community.
- 14. I would recommend this program to other parents.
- 15. I believe that combining native English speakers and native Spanish speakers in the classroom is the best way for my child to learn *Spanish*.

- 16. I really encourage my child to speak Spanish (English in the Spanish survey version) outside of school
- 17. I am confident that my child will be able to communicate very well in both Spanish and English after completing the program.

III. Encouraged Behaviors at Home

Please indicate how often you participated in the following activities in the *past 6 months*. Responses: almost never; 1–2 times; 1–2 times per month; 1–2 per week; daily

- 18. I read to my child in Spanish (English in the Spanish survey version).
- 19. I check out library books or buy books in Spanish (English in the Spanish survey version).
- 20. Spanish-speaking (English-speaking in the Spanish survey version) children come to our house to play with my child.
- 21. My child goes to the homes of other Spanish-speaking (English-speaking in the Spanish survey version) children.
- 22. We (my child) watch Spanish (English in the Spanish survey version) television programs.
- 23. We (my child) listen to Spanish (English in the Spanish survey version) radio programs.
- 24. We attend Hispanic (non-Hispanic in the Spanish survey version) cultural events.

Table D-1. Dual Language Parent Survey General Responses, by Highest Average Rating

Item	Mean rating	S.D.	Number of respondents
I am supportive of the dual language program my child is receiving at this school.	3.65	.70	369
I would recommend this program to other parents.	3.63	.71	364
I am confident that my child will be able to communicate very well in both Spanish and English after completing the program.	3.60	.73	370
I believe that combining native English speakers and native Spanish speakers in the classroom is the best way for my child to learn <i>Spanish</i> .	3.57	.69	361
I am satisfied that the Dual Language Program is giving my child access the subject matter that s/he needs.	3.55	.75	365
I enjoy the ethnic and linguistic diversity in our school and community.	3.52	.69	361
I am satisfied that the school is giving my child access to the subject matter that s/he needs.	3.51	.75	367
The faculty and staff are successful in balancing the needs and concerns of both English and Spanish speaking communities.	3.48	.73	363
Hispanic students, parents, staff and community members are made to feel like a valuable part of our school culture.	3.47	.72	362
I really encourage my child to speak Spanish/English outside of school.	3.45	.77	368
The faculty and staff have been successful in promoting diversity and understanding among the school community.	3.44	.71	364

Source. AISD Dual Language Parent Survey, Spring 2011

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