

Prekindergarten Expansion Grant Evaluation, 2003-04



Austin Independent School District
Department of Program Evaluation
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Executive Summary

In 2003-04, Austin Independent School District (AISD) offered full-day prekindergarten instruction to eligible four-year-olds who were limited English proficient, economically disadvantaged, or homeless. This was the second year for AISD to offer full-day instruction to students in all 65 elementary schools with prekindergarten programs. The prekindergarten (pre-K) program is an important part of the systemic effort to have every Texas student reading on grade level by the end of third grade. AISD received \$4,554,152 (up slightly from 2002-03) from the state *Prekindergarten Expansion Grant* to support full-day instruction in 2003-04.

PROGRAM DESCRIPTION

A total of 4,499 (4,414 in 2002-03) four-year-olds attended AISD prekindergarten during 2003-04. This year's prekindergarten enrollment was the largest ever for AISD. According to AISD student records, demographics for 2003-04 prekindergarten children include the following:

- Gender was balanced with 49% female and 51% male students.
- Ninety-three percent of students (n=4,184) were from low-income families.
- Fifty-three percent of students (n= 2,367) were of limited English proficiency (LEP).
- Forty-five percent (n=1,883) of the students met two criteria for eligibility.
- Homeless students (n=39) comprised less than 1% of all prekindergarten students.
- Hispanic students comprised the largest ethnic group (n=3,397), followed by African American (n=685), Anglo/Other (n=265), Asian (n=148), and Native American (n=4) students. The numbers of Hispanic and Asian prekindergarten students increased from 2002-03 to 2003-04 while the numbers of African American and Anglo/Other students decreased.
- Thirty-seven languages were reported as home languages among this year's students. The home languages reported with the most frequency were Spanish (n=2,248), English (n=2,067), Vietnamese (n=56), and Korean (n=17).
- The average daily attendance (ADA) was 94.2% (up slightly from 93.8% in 2003-04).

In 2003-04, there were 262 prekindergarten teachers. The average years of teaching experience for pre-K teachers was 9.1 (up slightly from 9.0 in 2002-03). While 26% of all prekindergarten teachers had 0-1 years of teaching experience in 2002-03, only 17% of pre-K teachers had that level of teaching experience in 2003-04.

MAJOR FINDINGS

During 2003-04, the AISD prekindergarten program continued to grow and change. With growth came challenges of funding, hiring enough certified teachers, and providing meaningful professional development. Along with a growing prekindergarten population, teachers learned a new state-provided curriculum and used the corresponding district-

developed instructional planning guides (IPGs). Amidst the growth and change, however, student progress in language and literacy and mathematics in 2003-04 remained consistent with 2002-03 results.

Progress in Literacy/Pre-Reading

Program effectiveness in language and literacy for prekindergarten was determined by gains from pretest to posttest on the English language *Peabody Picture Vocabulary Test-III* (PPVT-III) and the Spanish language *Test de Vocabulario en Imágenes Peabody* (TVIP). For both assessments, any gain greater than zero indicates that the student's performance improved compared to the national average. Major findings relating to language development include the following:

- Eighty-one percent of all Spanish language students and 67% of all English language students made gains when tested in their native language.
- Both English language and Spanish language students had an average posttest score of 95.7 standard score points, only 4.3 standard score points short of the national average of 100.
- Eighty-one percent (n=1,395) of all students scored in the average or above average range at the posttest when tested in their native language.
- Forty percent (42% in 2002-03) of the 2003-04 prekindergarten students were at or above the national average of 100 at the posttest when tested in their native language.
- Evidence of accelerated learning for English language students is seen by the growth in receptive vocabulary of 12 months in a 7-month period of instruction.
- Evidence of accelerated learning for Spanish LEP students is seen by the growth in receptive vocabulary of 15 months in a 7-month period of instruction.

Progress in Mathematics

Because there is no formal AISD mathematics assessment for pre-K through grade 2 at this time, mathematics ratings assigned by teachers and reported on the *Prekindergarten Report to Parents* were used to determine progress in mathematics during prekindergarten. According to this informal assessment, 73% (n=1,393) of prekindergarten students made progress in mathematics during prekindergarten, with the average gain of 1.0 level (on a scale of 1-4).

Long-Term Impact on Literacy Learning-Multi-Year Comparisons

A longitudinal study using PPVT-III/TVIP scores of students who attended AISD prekindergarten in 1999-2000 and their 2004 Grade 3 TAKS reading results was conducted. TAKS reading scores were matched for 935 (414 Spanish language and 521 English language) students who attended prekindergarten in 1999-2000. Because prekindergarten students qualify for the program because of low income and/or LEP, a fair comparison of the cohort English TAKS scores would be the with grade 3 economically disadvantaged students and the Spanish TAKS scores with the grade 3 LEP students. The cohort had a slightly lower passing rate (92%) than the district economically disadvantaged (94%) students on 2004 English TAKS reading. However, the cohort had a passing rate (92%) similar to that of the AISD grade 3 LEP students (93%) on 2004 Spanish TAKS reading.

The national average on both the PPVT-III and the TVIP is 100 standard score points. An analysis of the 1999-2000 cohort of prekindergarten students indicated that those who

scored at or above 100 standard score points at the end of prekindergarten had the greatest success on the 2004 TAKS reading test. For the English language cohort students (n=188) who scored 100 or above on the PPVT-III posttest in 1999-2000, 98% (n=184) passed 2004 TAKS reading. For Spanish language cohort students (n=236) who scored 100 or above on the TVIP posttest, 99% (n=234) passed 2004 TAKS reading.

Professional Development

In 2003-04, 217 (83%) teachers attended 3,001 hours of professional development relating directly to prekindergarten instruction, which is almost triple the number of 2002-03 training hours (1,072 hours) for prekindergarten teachers. Seventy-three percent (n=159) of these teachers attended more than one training session. AISD prekindergarten staff participation in 2003-04 prekindergarten training was highest in mathematics (900 hours) and DLM *Early Childhood Express* (746 hours) curricula. The average number of hours these pre-K teachers spent in training was 13.8 hours.

Teacher Reflections about New Curriculum

Program evaluation staff made classroom visits to 13 pre-K teachers who shared their insights about the new curriculum and professional development to support the implementation of the curriculum. In addition, all prekindergarten teachers were surveyed regarding their experience with the curriculum in May 2004. A total of 143 (55%) prekindergarten teachers responded to the survey.

When teachers were asked what they liked about the new DLM curriculum, they rated the materials to support instruction highest (average rating of 3.2 out of 4). These materials include sequencing cards, alphabet wall cards, oral language development cards, big book package, listening center, little book package, music CD-ROMs, photo library CD-ROM, and manipulative package. The Teacher's Guide and Resource Anthology also got high ratings from teachers (average rating of 3.1). Teachers indicated that the curriculum coordinated well with the state *Prekindergarten Curriculum Guidelines* and district IPGs (average ratings of 3.3 and 3.2, respectively).

With the new curriculum in place this year, teachers were asked if there were curriculum areas that need additional support. While the overall curriculum was generally liked, teachers were not as pleased (2.7 rating) with certain academic areas as they were with the instructional and teacher materials. For instance, language and literacy had the highest rating (3.0), but physical education (2.4), technology applications (2.6), social studies (2.6), and science (2.6) had the lowest average ratings.

Strengths of the Program

According to Anita Uphaus, administrative supervisor of prekindergarten, a major strength of the AISD prekindergarten program is providing full-day pre-K for all eligible students. More emphasis has been placed on prekindergarten education in AISD in the past few years, which is evidenced in full-day classes, a defined curriculum focus, and instructional planning guides for prekindergarten. In addition, certified teachers trained in early childhood teaching and learning strategies are provided for prekindergarten students.

In 2003-04, AISD also participated in a collaborative effort through the Texas Center for Early Childhood Development that paired the district with Head Start and local childcare agencies. Pre-K teachers from eight AISD campuses (Andrews, Cowan, Dawson, Pecan Springs, Ridgetop, Rodriguez, Sanchez, and Winn) were chosen to participate in the Texas

Early Education Model (TEEM) Demonstration Project. This is a state project to achieve higher levels of school readiness in cost effective ways.

Pre-K teachers have repeatedly commented about some of the strengths of the new curriculum adoption, according to Ms. Uphaus. Comments include the following:

- The system is the same for both Spanish and English classrooms.
- The system supports a balanced program integrating basic content areas.
- The teacher guides are well organized, follow a nine-week cycle (which correlates well to the reporting periods), and include state curriculum requirements.
- The system contains strong curriculum support materials for both teacher and student use including quality trade books, multiple instructional resources, and CD-ROMs for mathematics and recordkeeping.

RECOMMENDATIONS

Prekindergarten teachers and the administrative supervisor for prekindergarten identified some areas for improvement in the program. As state and national expectations become more rigorous, the educators of young children face many challenges. The district should strive for developmentally appropriate practices for prekindergarten while supporting the academic rigor required for prekindergarten students to close the achievement gap. Some of the recommendations listed are already in progress and need continued support from the district. The recommendations are as follows:

- Refine the teacher-made pilot language and mathematics assessment developed during 2003-04 and plan teacher training to implement the assessment in 2004-05.
- Provide quality literacy and mathematics professional development for pre-K teachers to ensure consistency and quality in curriculum and instruction, even in the face of a limited budget.
- Increase teacher commitment to attending training sessions.
- Provide new prekindergarten teacher training sessions to address district expectations and provide support.
- Work with the AISD Bilingual Department to accelerate English language acquisition for Spanish LEP prekindergarten students.
- Work with district technology staff to find resources to upgrade pre-K classroom computer hardware to be compatible with the new curriculum technology.
- Find a cost-efficient way to assess all pre-K students with instruments related to future success on TAKS.
- Identify students scoring less than a standard score of 100 on the PPVT-III or the TVIP for continued support in learning through kindergarten as they appear to have lower odds of passing grade 3 TAKS reading.

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AUSTIN ISD PREKINDERGARTEN PROGRAM, 2003-04

The purpose of this evaluation of the Austin Independent School District (AISD) prekindergarten (pre-K) program is to inform decision-makers at the local and state level about the academic progress of pre-K students. Student acquisition of language and mathematics skills, quality of professional development for pre-K teachers, and the impact of the prekindergarten program on student achievement are the main focus of this evaluation.

The 2003-04 program evaluation plan for the *Prekindergarten Expansion Grant*, Cycle 8 for Austin ISD is included in Appendix A. The major questions to be answered in this evaluation for the *Prekindergarten Expansion Grant* for Texas Education Agency (TEA) included the following:

1. How did the program demonstrate evidence of gains in cognitive development, especially in pre-reading and language, and mathematics?
2. How did the program demonstrate effectiveness of activities of the expanded full-day prekindergarten in achieving its goals?
3. How did the program determine the impact, short-term and long-term, of the expanded full-day prekindergarten on participants?

INTRODUCTION

Early childhood education has been a recent focus of state and federal legislation. The federal Head Start reauthorization bill has been debated and a vote has been delayed. At the state level, the 78th Texas legislature passed Senate Bill 76, which represents a first step toward the coordination of prekindergarten programs, Head Start, and childcare in the state of Texas. The *No Child Left Behind Act* (2001) focuses on accountability and requires that 100% of students pass the state reading and mathematics assessments (TAKS reading and mathematics in Texas) by 2013-14 and is supported by the *Good Start, Grow Smart* early childhood initiative (2002).

With increased attention on improved student achievement, the Austin Independent School District is meeting the challenge with many districtwide teaching and learning initiatives, such as the *Principles of Learning*, instructional planning guides (IPGs) to align district curriculum with the state K-12 *Texas Essential Knowledge and Skills* (TEKS) learning standards and the *Prekindergarten Curriculum Guidelines*, benchmark tests in reading and mathematics, K-12 reading and mathematics interventions, literacy specialists at all elementary campuses, and full-day prekindergarten classes for eligible four-year-olds. As a result of the district's efforts, 97% of all AISD grade 3 students tested in 2003-04 passed TAKS reading.

According to Susan Neuman, former Assistant Secretary of Elementary and Secondary Education (2003), "High-quality prekindergarten has been documented to be the single best investment for improving achievement." In support of the districts' involvement in a collaborative state project aimed at improving the school readiness of at-risk children (Texas Early Education Model), Dr. Pat Forgione, superintendent of Austin schools, stated that, "Pre-K programs are critical for a large number of children. Youngsters who lack basic language and literacy skills when they enter kindergarten start off at a disadvantage. It's hard for them to catch up and to close that achievement gap in their later school years." (Press conference October 13, 2003)

AISD PREKINDERGARTEN PROGRAM DESCRIPTION

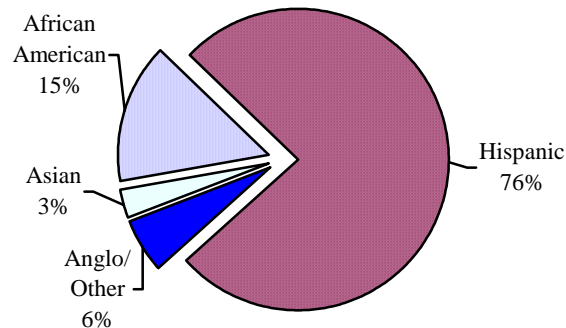
In 2003-04, AISD offered full-day prekindergarten instruction to eligible four-year-olds who were limited English proficient, economically disadvantaged, or homeless. This was the second year for AISD to offer full-day instruction to students in all 65 elementary schools with prekindergarten programs. See Appendix B for a complete list of the schools that had prekindergarten programs in 2003-04.

Student Information

A total of 4,499 (4,414 in 2002-03) four-year-olds attended AISD prekindergarten during 2003-04. This year's prekindergarten enrollment was the largest ever for AISD. According to AISD student records, demographics for 2003-04 prekindergarten children include the following:

- Gender was balanced with 49% female and 51% male students.
- Ninety-three percent (n=4,184) of students were from low-income families.
- Fifty-three percent of students (n=2,367) were of limited English proficiency (LEP).
- Homeless students (n=39) comprised less than 1% of all prekindergarten students.
- As shown in Figure 1, Hispanic students comprised the largest ethnic group (n=3,397), followed by African American (n=685), Anglo/Other (n=269), and Asian (n=148) students. The numbers of Hispanic and Asian prekindergarten students increased from 2002-03 to 2003-04 while the numbers of African American and Anglo/Other students decreased.

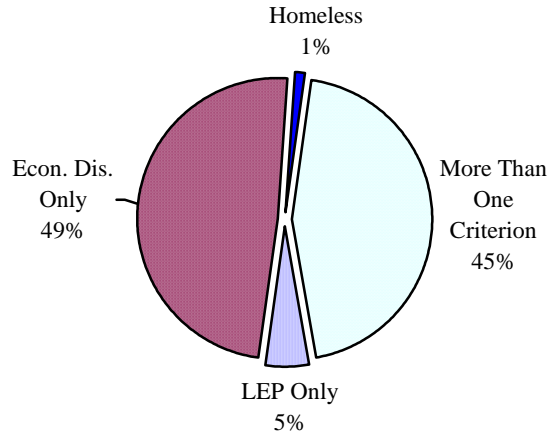
Figure 1: Ethnicity of AISD Prekindergarten Students, 2003-04



Source: AISD Student Records

To meet the eligibility requirements for prekindergarten, four-year-olds must be low income, limited English proficient, or homeless. In 2003-04, the largest percentage (49%) of AISD students qualified by low-income status alone. However, another 45% of the students met more than one criteria. Figure 2 shows the percentages of types of eligibility for AISD prekindergarten students in 2003-04.

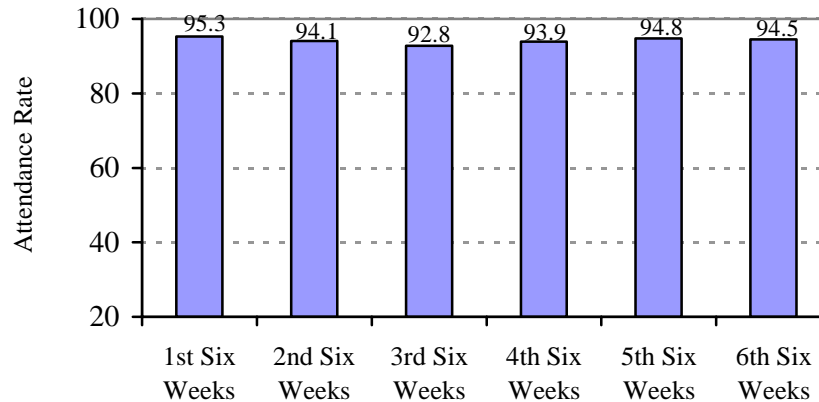
Figure 2: Percentages of Types of Eligibility for AISD Prekindergarten Students, 2003-04



Source: 2003-04 PEIMS data

The average daily attendance has been historically lower for prekindergarten than for other elementary grades. The average daily attendance for pre-K students in 2003-04 was 94.2% (up slightly from 93.8% in 2002-03), compared with 95.5% for kindergarten and 96.4% for grade 1 students. Figure 3 shows the 2003-04 average daily attendance for prekindergarten students by six-week period.

Figure 3: Average Daily Attendance for AISD Prekindergarten Students by Six-Week Period, 2003-04



Source: 2003-04 PEIMS Summer Collection, Resubmission

Campus and Teacher Information

The number of pre-K students served at each of the 65 campuses varied widely in 2003-04, and ranged from 21 students at Casis to 158 students at Walnut Creek. The average pre-K student-teacher ratio in 2003-04 was 17.2, down from 18.2 in 2002-03. Table 1 summarizes various program comparison data from 1999-2000 through 2003-04. (Note: These data include all prekindergarten students served at any point in a given year.)

Table 1: Five Years of AISD Prekindergarten Information, 1999-2000 through 2003-04

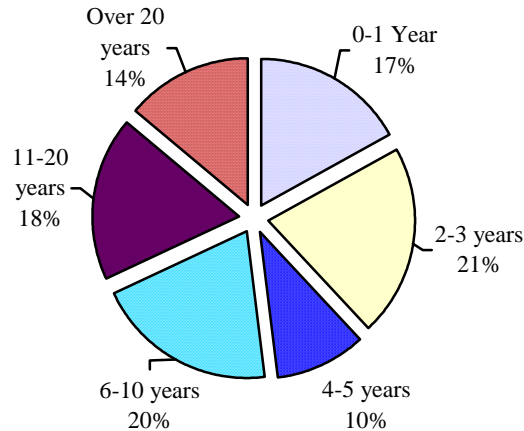
Pre-K Information	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
Number of Schools	57	58	61	61	65
Number of Teachers	179	178	201	243	262
Number of Pre-K Students	3,571	3,441	3,823	4,414	4,499
Number Low-Income *	2,890	2,762	3,153	4,060	4,184
Number LEP *	1,336	1,442	1,901	2,206	2,367

* Students can be both low income and LEP.

Source: AISD Student Records

There were 262 prekindergarten teachers in 2003-04. Average teaching experience for pre-K teachers in AISD was 9.1 years (9.0 in 2002-03). The majority (52%) of the pre-K teachers had more than five years of teaching experience. Although the average number of years' teaching experience was about the same in 2003-04 as in 2002-03, a more experienced staff of prekindergarten teachers taught in AISD in 2003-04. While 26% of all prekindergarten teachers had 0-1 years teaching experience in 2002-03, only 17% of teachers had that same level of teaching experience in 2003-04. The percentage of teachers at each AISD teaching experience level is shown in Figure 4.

Figure 4: AISD Prekindergarten Teacher Experience, 2003-04



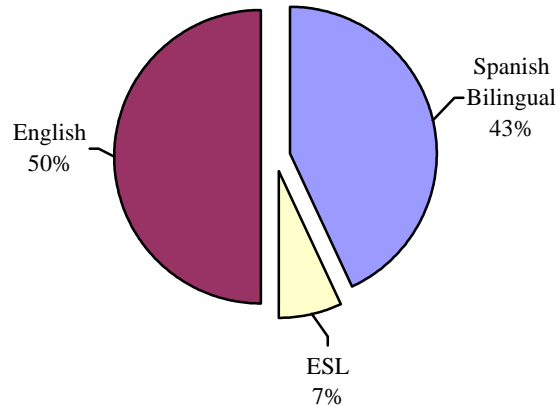
Source: AISD Human Resource Records

Language of Instruction

Thirty-seven languages were reported as home languages among this year's prekindergarten students. The home languages reported with the most frequency were Spanish (n=2,248), English (n=2,067), Vietnamese (n=56), and Korean (n=17).

AISD offers prekindergarten instruction in English and Spanish. In 2003-04, 43% of the prekindergarten students received the majority of their instruction in Spanish from a bilingual certified teacher. Seven percent of students received English instruction from an English as a Second Language (ESL) certified teacher. Figure 5 shows the percentage of prekindergarten students by type of instruction in 2003-04.

Figure 5: Type of Instruction Provided for AISD Pre-K Students, 2003-04



Source: AISD Student Records

Prekindergarten Budget

The State of Texas Foundation School Program provides the funding for half-day prekindergarten. The district must pay for the additional half day of instruction for the full-day pre-K classes. AISD received the Cycle 8 *Prekindergarten Expansion Grant* in 2003-04 to fund the additional half day for 47 of the 65 schools offering full-day pre-K classes.

The grant amount of \$4,554,152 was used for pre-K teacher salaries and benefits, provision for substitute teachers while pre-K teachers attended professional development, extra-duty pay, reading materials and supplies, and professional support salaries for the full-day programs. In addition, \$24,493 in Title I funds and approximately \$957,000 in local funds were used to support the full-day prekindergarten program in 2003-04.

PREKINDERGARTEN PROGRAM EVALUATION

The following section will focus on the evaluation questions from the Texas Education Agency (TEA). Examination of the short-term and long-term impact of the prekindergarten program on student academic growth includes the following areas: results of the pre-K assessments in language/literacy and mathematics; professional development for pre-K teachers; and comments by teachers and the program director about the prekindergarten program in AISD.

1. How did the program demonstrate evidence of gains in cognitive development, especially in pre-reading and language, and mathematics?

Program effectiveness in language and literacy for prekindergarten was determined by gains from pretest to posttest on the English language *Peabody Picture Vocabulary Test-III* (PPVT-III) and the Spanish language *Test de Vocabulario en Imágenes Peabody* (TVIP). The PPVT-III and TVIP measure knowledge of receptive vocabulary in English or in Spanish, respectively. Standard test scores are based on national age norms, with a mean of 100 and a standard deviation of 15 for both tests. For a student to maintain his or her standing relative

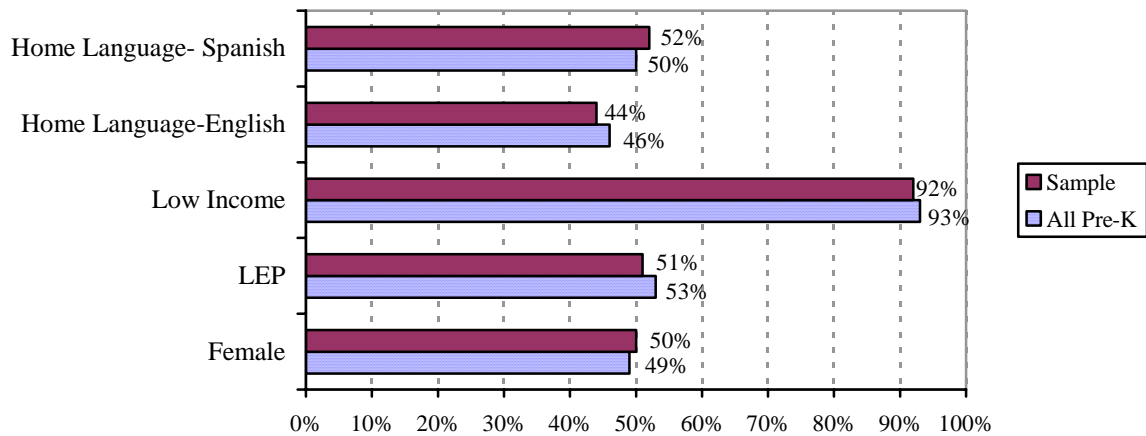
to the national average, the gain score would be zero. **Any gain greater than zero indicates that the student's performance improved compared to the national average.**

The PPVT-III and TVIP are achievement tests of the level of a person's vocabulary acquisition. However, the tests can only be used as a screening test of verbal ability when tested in the examinee's home language. Spanish LEP students are tested in English (in addition to Spanish) to measure growth in English language acquisition that is part of the English as second language (ESL) component of prekindergarten. See Appendix C for the average PPVT-III and TVIP scores by school.

Testing Sample

In fall 2003 and spring 2004, the PPVT-III and TVIP were administered to a random sample of pre-K students in all AISD schools with prekindergarten programs. As shown in Figure 6, students tested closely matched the overall AISD pre-K population. All students in the sample were tested in English (PPVT-III); Spanish LEP students also were tested in Spanish (TVIP).

Figure 6: Demographic Comparison of AISD Pre-K Testing Sample With All AISD Prekindergarten Students, 2003-04



Source: AISD Student Records

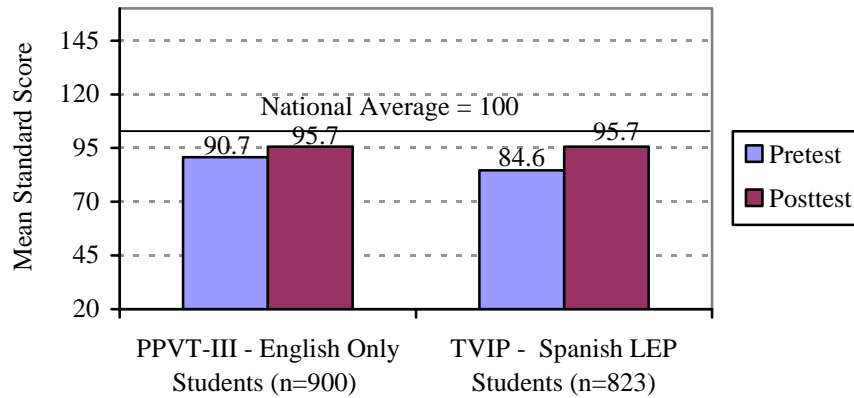
Progress in Language Arts/Pre-Reading

In fall 2003, 1,983 pre-K students (1,824 in 2002-03) were pretested on the PPVT-III. Although every effort was made to posttest all students who had a valid pretest score, 260 fewer students were posttested due to withdrawals, illnesses, and relocations of eligible students. A total of 1,723 (38% of all) pre-K students had valid pre- and posttest scores on the English language PPVT-III. In addition, 823 (35%) Spanish LEP pre-K students had valid pre- and posttest scores on the TVIP.

Because the PPVT-III and TVIP measure verbal ability when administered in the student's home language, it is necessary to look at the test results by native language: PPVT-III for English language students and TVIP for Spanish language students. **Eighty-one percent of all Spanish language students and 67% of all English language students made gains on tests in their native language (74% of all students tested).**

While the Spanish language students had a lower average pretest score (84.6 standard score points) than the English language students (90.7 points) when tested in the native language, Spanish language students made double the gains (11.1 points) of English language students (5.0 points) on the posttest. **However, the average posttest score for both groups of students was 95.7 standard score points, only 4.3 standard score points short of the national average of 100.** Figure 7 shows the average pretest and posttest scores when students took these tests in their native language; the horizontal line represents the national norm of 100.

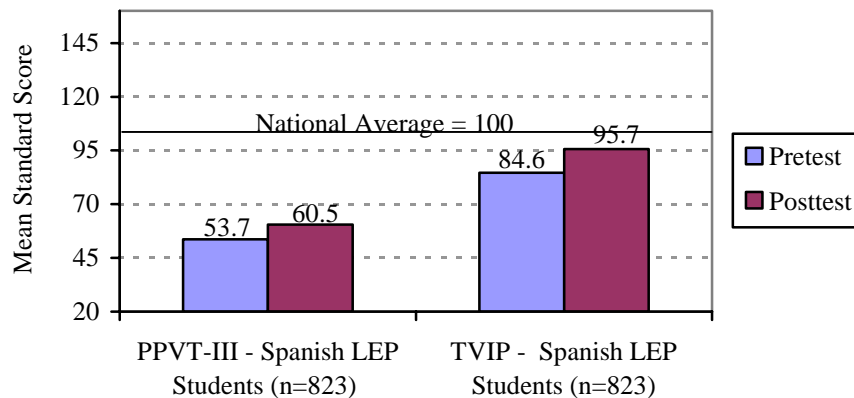
Figure 7: Average PPVT-III and TVIP Pretest and Posttest Scores for AISD Pre-K Students When Tested in Their Native Language, 2003-04



Source: AISD Program Evaluation PPVT-III and TVIP Records, 2003-04

The average gain on the TVIP of 11.1 standard score points is similar to the gain in 2002-03 (11.6 points). Also of interest is the progress made by Spanish language students in English language acquisition. Because English is the second language for Spanish LEP students, the average pre- and posttest scores on the PPVT-III were in the below average range (53.7 and 60.5 standard scores points, respectively), but the gain of 6.8 points shows that student performance improved and is similar to the average gain of 7.0 points in 2002-03. Figure 8 shows the PPVT-III and TVIP pre- and posttest scores for Spanish language students in 2003-04.

Figure 8: Average PPVT-III and TVIP Pretest and Posttest Scores for AISD Spanish Language Students, 2003-04



Source: AISD Program Evaluation PPVT-III and TVIP Records, 2003-04

Students Scoring in Average Range

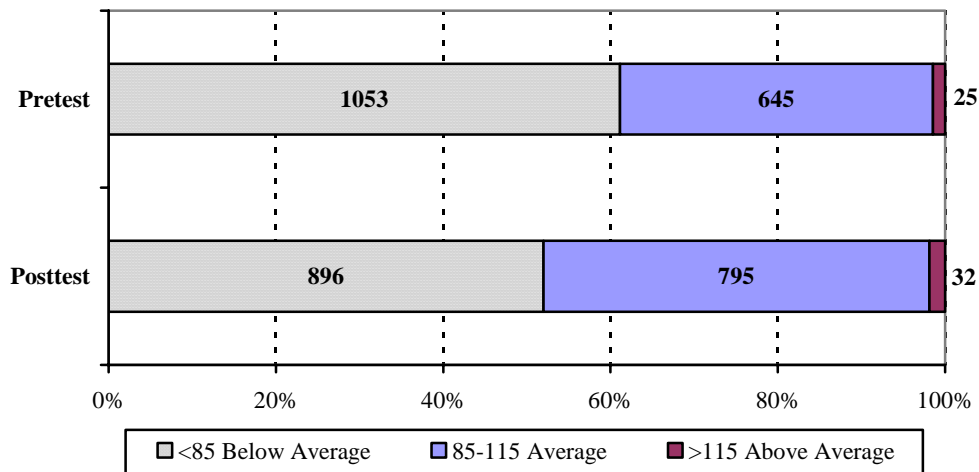
It is important to know how prepared the pre-K students will be when they start kindergarten. Although 100 is the national average score, there is an average range for both the PPVT-III and the TVIP of 85-115 standard score points (one standard deviation above and below the mean). The assumption is that students who advance to the average range in the test of their native language will be ready to accelerate future literacy learning in kindergarten.

Each posttest score was examined to determine if it fell within this range for all students taking the PPVT-III, Spanish LEP students taking the TVIP, Spanish LEP students taking the PPVT-III, and English-only students on the PPVT-III. Analysis of these data reveals the following information:

- **81% (n=1,395) of all students tested in the native language scored in the average or above average range at the posttest;**
- 83% (n=749) of *English-only* students tested on the PPVT-III scored in the average or above average range at the posttest;
- 78% (n=646) of all *Spanish LEP* students tested on the TVIP scored in the average or above average range at the posttest;
- 48% (n=827) of *all students* tested on the PPVT-III scored in the average or above average range at the posttest;
- 9% (n=78) of *Spanish LEP* students tested on the PPVT-III scored in the average or above average range at the posttest ; and
- 8% (n=66) of *Spanish LEP* students tested on both the PPVT-III and the TVIP scored in the average or above average range at the posttest.

Figures 9-12 show the numbers and percentages of students who scored in the below average, average, and above average ranges at the pretest and posttest. Figure 9 shows that when examining scores for all pre-K students tested on the PPVT-III, there is an increase in the number of students who were in the average or above average range from the pretest (n=670) to the posttest (n=827). This includes all students tested in English.

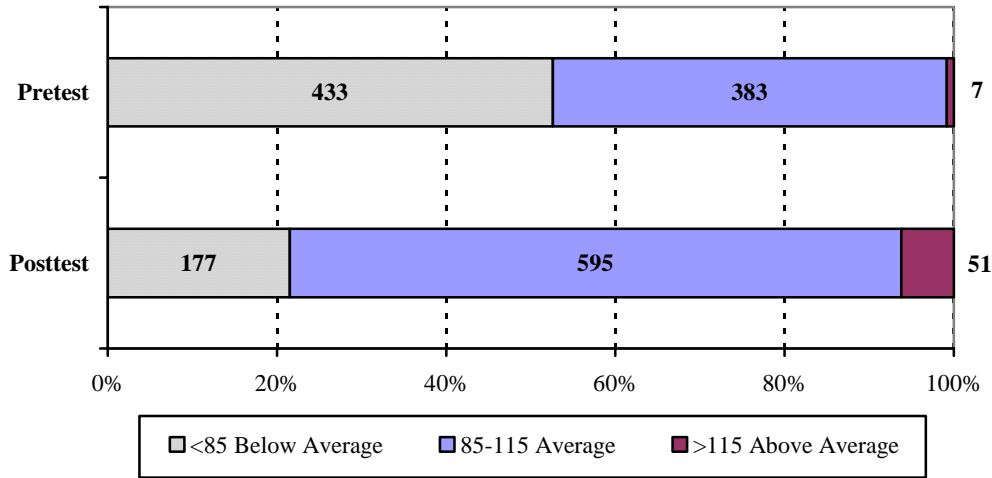
Figure 9: Number and Percentage of All AISD Pre-K Students Tested (N=1,723) Who Were Below, At, and Above Average on the PPVT-III Pretest and Posttest, 2003-04



Source: AISD Program Evaluation PPVT-III Records, 2003-04

The greatest growth in receptive vocabulary was for Spanish LEP students on the TVIP moving from 47% (n=390) of students in the average or above range at the pretest to 78% (n=646) of students in average or above average range at the posttest. Figure 10 shows the numbers and percentages of Spanish language pre-K students in the below average, average, and above average ranges at the TVIP pretest and posttest.

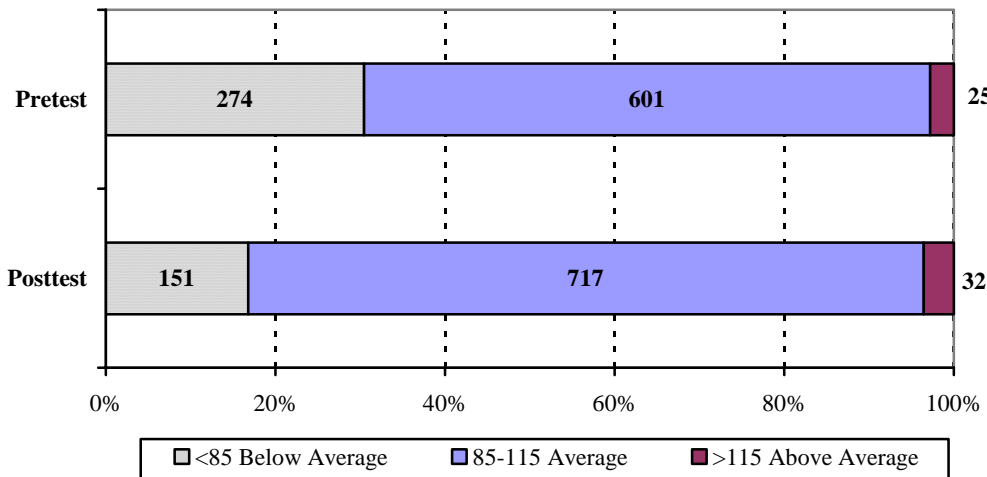
Figure 10: Number and Percentage of AISD Spanish Language Pre-K Students (N=823) Who Were Below, At, and Above Average* on the TVIP Pretest and Posttest, 2003-04



Source: AISD Program Evaluation TVIP Records, 2003-04

Although 626 (70%) of the English language students were already in the average or above average range at the pretest, an additional 123 (14%) students moved from below average to the average or above average range at the posttest. Figure 11 shows the numbers and percentages of English language pre-K students in the below average, average, and above average ranges at the PPVT-III pre- and posttest.

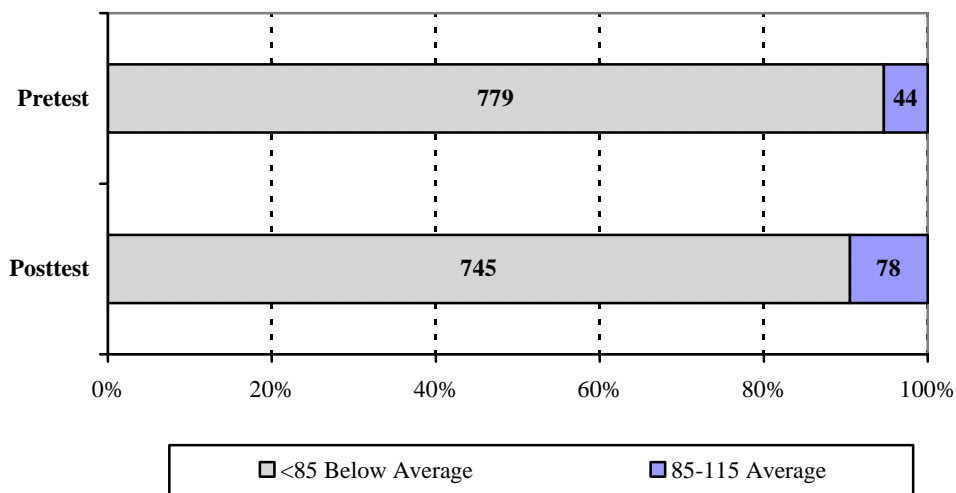
Figure 11: Number and Percentage of AISD English Language Pre-K Students (N=900) Who Were Below, At, and Above Average on the PPVT-III Pretest and Posttest, 2003-04



Source: AISD Program Evaluation PPVT-III Records, 2003-04

While the PPVT-III scores were low for Spanish language students, the number of students in the average range increased by 45%, from 44 at the pretest to 78 at the posttest. Figure 12 shows the numbers and percentages of Spanish language pre-K students in the below average and average ranges at PPVT-III pre- and posttest.

Figure 12: Number and Percentage of AISD Spanish Language Pre-K Students (N=823) Who Were Below, At, and Above Average on the PPVT-III Pretest and Posttest, 2003-04



None were above average in receptive vocabulary at the pre- or posttest.
Source: AISD Program Evaluation TVIP Records, 2003-04

A total of 40% (42% in 2002-03) of the 2003-04 prekindergarten students in the testing sample were at or above the national average of 100 at the posttest when tested in their native language. Of these, 37% (n=335) of all English-only students taking the PPVT-III had a standard score of 100 (national average) or higher, and 42% (n= 345) of all Spanish LEP students tested on the TVIP had a standard score of 100 or higher on the posttest.

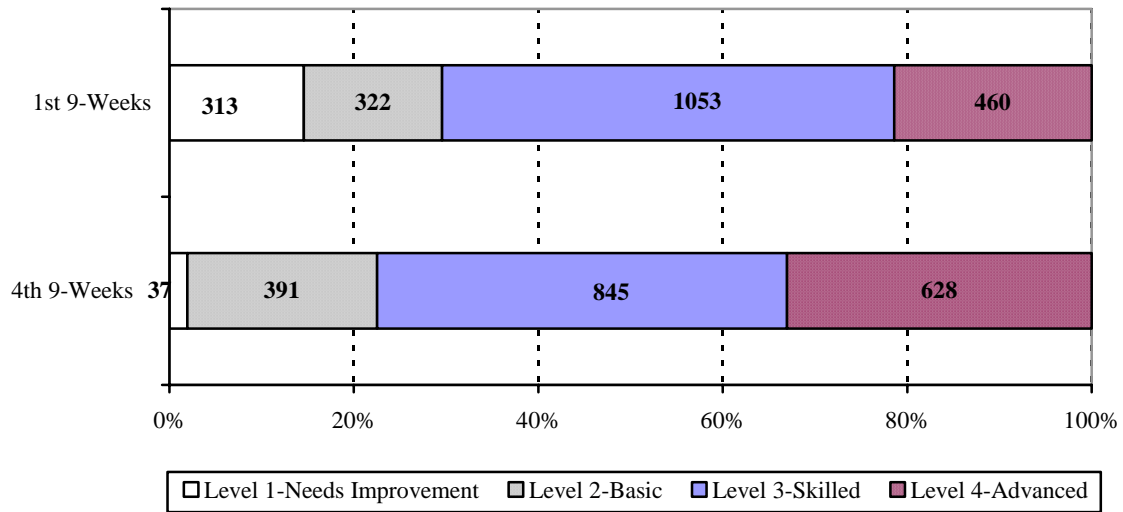
Progress in Mathematics

AISD uses the *Prekindergarten Report to Parents* four times each year to report student academic progress, which is rated by teachers for the areas of pre-reading/concepts of print, oral language, writing, listening, mathematics, social studies/science/health, and English as a second language. The performance scale used for rating academic progress is as follows: 1-needs improvement, 2-basic understanding, 3-skilled, and 4-advanced. Although there are major instructional goals listed on the *Prekindergarten Report to Parents*, there is no continuum for expected development by which to assess progress.

Because there is no formal mathematics assessment for pre-K through grade 2 in AISD at this time, mathematics ratings on the *Prekindergarten Report to Parents* were used to determine progress in mathematics during prekindergarten. Although there is no definition of “on grade level,” the state *Prekindergarten Curriculum Guidelines* elaborate on appropriate academic progress for pre-K students. Teachers were asked to list the mathematics performance levels for pre-K students who had reports for the first and last nine weeks of 2003-04. In a sample of data obtained, 130 (50%) pre-K teachers reported mathematics progress for 1,901 students.

A review of the number of students at each mathematics performance level indicates that, according to teachers, 17% of prekindergarten students were “in need of improvement” in mathematics skills at the beginning of the school year while only 2% of students were “in need of improvement” by the end of the year. The percentage of students who were “skilled” or “advanced” in mathematics at the beginning of the year was 28% while 77% of students were reported to be “skilled” or “advanced” on the *Prekindergarten Report to Parents* by the end of the school year. Figure 13 shows the number and percent of students at each level at the beginning and end of 2003-04 as reported by teachers. (Note: This is an informal assessment and is subject to individual teacher standards.)

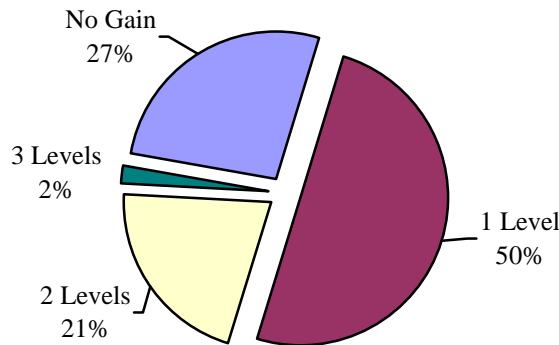
Figure 13: Number and Percent of AISD Pre-K Students at Levels 1-4 on a Sample of the 1st and 4th Nine Weeks *Prekindergarten Report to Parents*, 2003-04 (N=1,901)



Source: AISD *Prekindergarten Report to Parents* Records, 2003-04

According to this informal assessment by teachers, 73% (n=1,393) of prekindergarten students in the sample made progress in mathematics during prekindergarten, with the average gain of 1.0 level. Figure 14 shows the gain in math performance ratings from first to last nine weeks reported to pre-K parents in 2003-04.

Figure 14: Percentage of Student Mathematics Gain by Performance Level on the AISD *Prekindergarten Report to Parents*, 2003-04



Source: AISD *Prekindergarten Report to Parents* Records, 2003-04

In 2004-05, a prekindergarten language and mathematics assessment will be piloted by a group of 10 prekindergarten teachers who participated in the creation of the assessment instrument. The assessment has been aligned with the *Prekindergarten Curriculum Guidelines*. The new DLM *Early Childhood Express* curriculum was the primary resource for the development of the assessment instrument.

2. How did the program demonstrate effectiveness of activities of the expanded full-day prekindergarten in achieving its goals?

Professional development with the new DLM *Early Childhood Express* curriculum was the major focus of training for prekindergarten teachers in 2003-04. The publishers of the curriculum provided resources for these trainings. At the beginning of the year training in August 2003, some of the authors of the curriculum, Dr. Doug Clements (math), Dr. Pam Schiller (brain research), and Dr. Thomas Moore (music), presented ideas and resources available to support instruction.

Professional Development

In 2003-04, 217 (83%) pre-K teachers attended 3,001 hours of professional development that were directly relating to prekindergarten instruction, which is almost triple the number of 2002-03 training hours (1,072 hours) for prekindergarten teachers. Seventy-three percent (n=159) of these teachers attended more than one training session. Prekindergarten teachers who attended training had an average of 13.8 hours. Professional development opportunities for pre-K teachers include the following:

Math

- *Prekindergarten TEXTEAMS* training - Three days of training that emphasized the five content areas of prekindergarten mathematics guidelines.
- *Navigating Algebra Grades Pre-K to 2* – This class helped teachers recognize and identify the Patterns, Relationships and Algebraic Thinking Strand in Mathematics.

DLM Early Childhood Express Curriculum

- Pre-K DLM Textbook System – The DLM *Early Childhood Express* is the newly adopted, official textbook system required for use in all AISD Pre-Kindergarten classes. AISD Pre-K Instructional Planning Guides (IPGs) are aligned directly to this curriculum.

Prekindergarten Guidelines (Three-hour classes on these specific skill areas).

- Implementing Pre-K Language Arts Guidelines;
- Implementing Pre-K Science and Math Guidelines; and
- Implementing Pre-K Social Studies Guidelines.

Instructional Planning Guides (IPGs)

- Pre-K Team Leader Curriculum Update – These two-hour sessions addressed the use of IPGs for pre-K teacher planning and instruction.

Science

- *Treehomes* – This science training related to the GEMS (*Great Explorations in Math and Science*) curriculum for prekindergarten students.

Assessment

- *Using the Self-Assessment Tool: Pre-K Curriculum Guidelines* – The TEA Director of Early Childhood, Cami Jones, introduced the new state guide, *Impacting Student Achievement Through the Language and Literacy Prekindergarten Curriculum Guidelines: A Self-Assessment Tool*.
- Pre-K Assessment Taskforce - A select group of pre-K teachers provided input on the development of an assessment tool for use in the pre-K program.

Bilingual

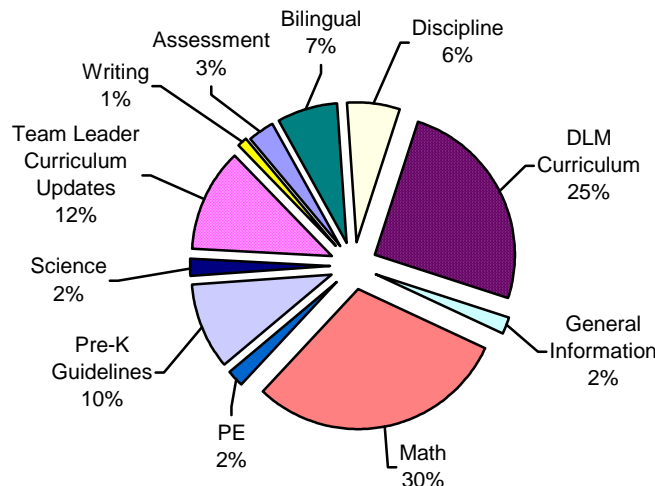
- *Estrellita* Pre-K Early Literacy Program - *Estrellita* is a supplemental, phonics-based, accelerated beginning Spanish reading program. *Estrellita* utilizes a multi-sensory approach by incorporating visual cues, chanting, kinesthetic activities, and language strategies.
- *LEER MAS* Training for Pre-K - This training is an extension of the Texas Teacher Reading Academy for the Bilingual classroom. Participants were provided a Spanish Language Arts Activities binder for the classroom.

Other

- Writing Process with Pre-K Through 12 Perspective - This course involved participants in a writing process experience to learn the fundamentals of theory and practice in the field.
- PE for Pre-K – Training focused on the pre-K guidelines that include directives for physical movement, gross motor development, and fine motor development that are to be incorporated into daily schedules for all pre-kindergarten classes.
- Pre-K Positive Discipline - Teacher leaders presented effective, positive discipline strategies for prekindergarten classrooms.

AISD prekindergarten staff participation in 2003-04 prekindergarten training was highest in the mathematics (900 hours) and the DLM Early Childhood Express (746 hours) curricula. Figure 15 shows the percentage of training hours by subject area.

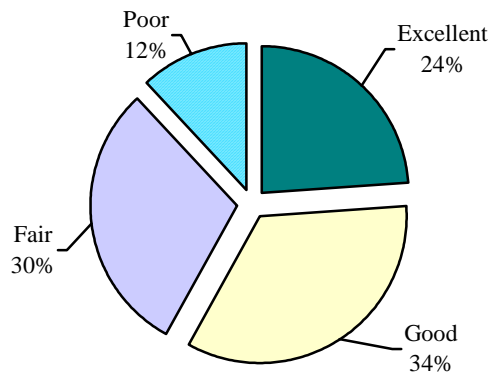
Figure 15: Type of Professional Development Sessions Attended by AISD Prekindergarten Teachers, 2003-04



Source: AISD Professional Development Academy Records, 2003-04

When prekindergarten teachers were asked on the teacher survey, “How would you rate the professional development to support the new curriculum,” the average response was 2.7 on a 4 point scale with 4 being excellent and 1 being poor. (See Appendix D for a summary of the responses to the 2003-04 Prekindergarten Teacher Survey.) The majority (58%) of teachers who responded to the survey indicated that the professional development had been good or excellent in 2003-04. Figure 16 shows the percentages of teachers’ ratings of professional development.

Figure 16: Professional Development Rating by AISD Prekindergarten Teachers, 2003-04



Source: Prekindergarten Teacher Survey, 2003-04

Anita Uphaus, administrative supervisor for prekindergarten, reported that the 2003-04 professional development for pre-K teachers focused on language arts, mathematics, and the implementation of the new textbook system along with the new instructional planning guides (IPGs). In 2004-05, she added, “Professional development will continue to support the district curriculum requirements and will also be expanded to address needs requested by teachers.”

Teachers gave suggestions for future professional development topics. A few of these suggestions follow:

- A TEXTEAMS type training for DLM math;
- DLM Summit in Austin;
- Technology training, especially for the math CD-ROM;
- Demonstration classroom to show actual classroom ideas from morning circle to dismissal;
- Time management strategies;
- “Make and Take” session for different curriculum units;
- Open discussion sessions for teachers to share ideas for criteria charts, shared writing, open-ended questions, “question of the day,” and graphic organizers;
- IPG and DLM curriculum training;
- Emergent readers/Take Home Literacy Program; and
- Science training to incorporate curriculum.

Classroom Visits

Visits to 13 prekindergarten classrooms were conducted in March 2004 at three campuses, Allan, Dawson, and Wooldridge. The purpose of the prekindergarten classroom visits was to view the implementation of the new DLM *Early Childhood Express* curriculum and to talk with teachers about the effectiveness of the curriculum to support teaching and learning. Three staff persons from the Department of Program Evaluation observed the classroom environment, materials and curriculum, and learning opportunities for prekindergarten students. Protocol for the visits included the following:

- Sending prekindergarten teachers a survey with questions about the curriculum and materials prior to the visits.
- Observing the prekindergarten classrooms during the school day.
- Using University of Texas Houston Health Science Center forms as a guide (*Preschool Early Language and Literacy Quick Check* and *Basic Classroom Environment Checklist*) to focus the observation on prekindergarten skills and activities.
- Meeting with teachers at the end of the day to discuss the curriculum and materials survey.

Reflections from Classroom Visits

The structure of these prekindergarten classrooms allowed for both rigorous academic learning as well as developmentally appropriate opportunities. From the time they entered the classroom, students often were engaged in activity centers. Some of the centers included literacy activities, math manipulatives, science and discovery, writing journals, books, blocks, puzzles and games, and housekeeping centers.

The new curriculum integrated plan started with the theme, “enduring” understanding, and essential questions each day. Key concepts and skills to be developed were then defined. Learning activities included English/language arts, math, science, social studies, and technology. Enrichment activities, modifications, and assessments were also part of the day’s plan.

Balanced literacy learning activities included Read Aloud, Independent Reading, Shared Reading, Independent Writing, and Shared Writing. Small group instruction took place during center time when the teacher worked with a few children to teach or practice a skill. Physical exercise occurred during outside play time and during a more structured physical education time. Students participated in calendar, music, phonics, poetry, literacy, and math activities during together time. Technology was part of the curriculum, but many teachers said that because of older computers, they were unable to use the math CD-ROMs.

Prekindergarten students had breakfast and lunch at school as well as a nap. Teachers served as an extension of home by helping students with their everyday needs as well as academic and social needs. The program evaluation staff found these prekindergarten classrooms to be comfortable and secure places for these four-year-olds to spend their days while stimulating their interest in learning. Student work is proudly displayed and criteria charts displayed on classroom walls helped children know what was expected of them. Teachers involved students in “Accountable Talk” about the quality of their work. Students participated in large group, small group, and individualized instruction throughout the day.

According to Anita Uphaus, evidence of accelerated learning in the prekindergarten classrooms during 2003-04 can be summarized as follows:

- Teachers have higher expectations for student learning.
- District-written curriculum requirements are being addressed by both teachers and administrators.
- Students are involved in relevant purposeful learning activities.

Program evaluation observers would agree that teachers are creating opportunities to increase student learning for these four-year-olds. However, one observer noticed the lack of English language instruction for Spanish LEP students. ESL (English as a Second Language) instruction should be included in the instructional day for pre-K students. In 2004-05, the AISD Bilingual Education department will implement RISE (*Rigorous Instruction in Spanish and English*). The RISE framework is organized to provide direct instruction in both Spanish and English from the first day of school. As shown in Figure 20, English language PPVT-III pre- and posttest scores for Spanish LEP students have decreased for the past two years. This will be an area to review more closely in 2004-05.

Teacher Reflections about Curriculum

The thirteen teachers involved in the classroom visits shared with the program evaluation staff their insight about the new curriculum and professional development to support the implementation of the curriculum. In addition, all AISD prekindergarten teachers were surveyed for their experience with the curriculum in May 2004. A total of 143 prekindergarten teachers responded to the survey. Summaries of those discussions follow.

Teachers were asked what they liked about the new DLM curriculum. The student materials to support instruction had the highest rating (3.2 out of 4) among prekindergarten teachers. These materials include sequencing cards, alphabet wall cards, oral language development cards, big book package, listening center little book package, music CD-ROMs, photo library CD-ROM, and manipulative package. The Teacher's Guide and Resource Anthology got high ratings, as well, from teachers (3.1). Teachers also indicated that the curriculum coordinated well with the state *Prekindergarten Curriculum Guidelines* and district IPGs (3.3 and 3.2, respectively). According to teachers, other assets of the new curriculum include the following:

- Resources for parent connections;
- Math program by Doug Clements (well-known writer of early childhood mathematics educational materials);
- A new theme each week (some could be two weeks);
- Performance Checklist assessment;
- Key concepts charts for planning; and
- Quality and quantity of literature (much of it originally in Spanish).

With the new curriculum in place this year, teachers were asked if there were curriculum areas that needed additional support. While the overall curriculum was generally liked, teachers were not as pleased (2.7 rating) with certain academic areas as they were with the instructional and teacher materials. Language and literacy had the highest rating (3.0) while physical education (2.4), technology applications (2.6), social studies (2.6), and science (2.6) had lower ratings. According to teachers, the specific areas in need of support include the following:

- Math CD-ROM games and management system were difficult to work or they do not work with older computers.
- There are too many teacher-made materials.
- Suggestions are needed for integrating math, science and social studies to the stories used for literature.
- The skills do not seem to be taught in an order that builds upon prior knowledge acquisition nor are skills repeated enough to ensure retention of concepts.
- More multicultural materials are needed.
- More math manipulatives are needed.
- More informative texts for science are needed.

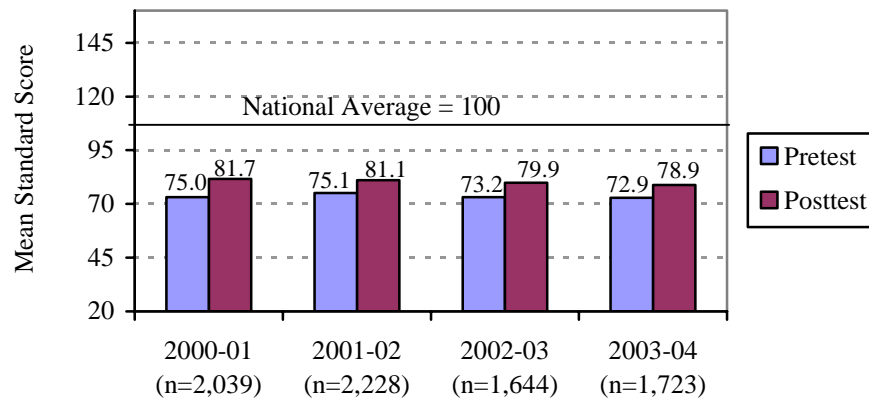
3. How did the program determine the impact, short-term and long-term, of the expanded full-day prekindergarten on participants?

Short-term Impact of the Prekindergarten Program

A look at the prekindergarten program over time gives an indication of the benefit of pre-K instruction on pre-reading skills in several groups of students. Average scores are reported here for years 2000-01 through 2003-04.

The average PPVT-III pre- and posttest scores for all students were lower in 2003-04 than in any of the previous three years. The average standard score gain was slightly less this year (6.0 standard score points) than in 2002-03 (6.7 points). Figure 17 shows the average pre- and posttest scores for all students tested on the PPVT-III, 2000-01 through 2003-04.

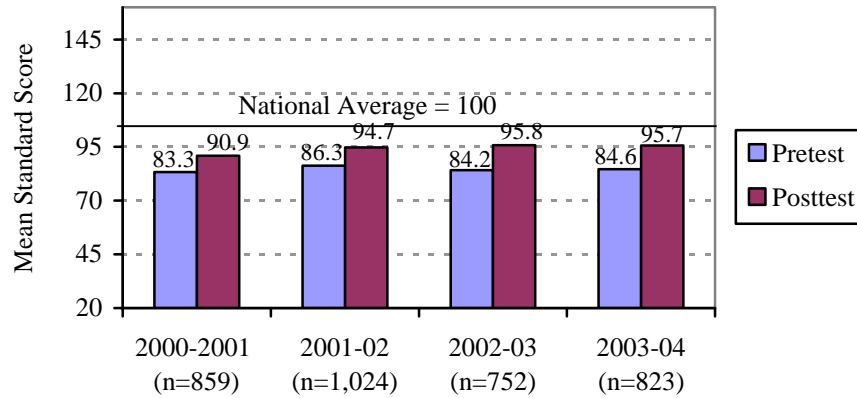
Figure 17: Four-Year Comparison for All AISD Pre-K Students Tested on PPVT-III, 2000-01 through 2003-04



Source: AISD Program Evaluation PPVT-III Records, 2000-01 through 2003-04

Spanish LEP students attained an average gain of 11.1 standard score points on the TVIP similar to the gain (11.6) in 2002-03. As shown in Figure 18, the 2003-04 average posttest score on the TVIP for Spanish LEP students was 95.7, thus teachers were able to maintain a high average gain for another year. **Evidence of accelerated learning for Spanish LEP students is seen by the growth in receptive vocabulary of 15 months in a 7 month period of instruction.**

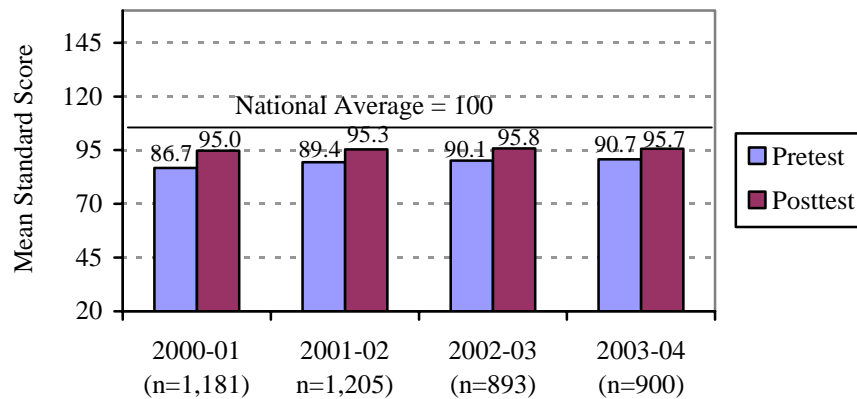
Figure 18: Four-Year Comparison for AISD Spanish LEP Pre-K Students Tested on the TVIP, 2000-01 through 2003-04



Source: AISD Program Evaluation TVIP Records, 2000-01 through 2003-04

The average posttest scores for English language pre-K students on the PPVT-III have been the same in 2002-03 and 2003-04 as those for Spanish language students on the TVIP (95.8 in 2002-03 and 95.7 in 2003-04). Although the 2003-04 average PPVT-III pretest score for English language students was higher than any of the three previous years, the gain at posttest was smaller (5.0 average standard score points). **Evidence of accelerated learning for English language students is seen by the growth in receptive vocabulary of 12 months in a 7 month period of instruction.** Figure 19 shows the multi-year test data for English-only students on the PPVT-III, 2000-01 through 2003-04.

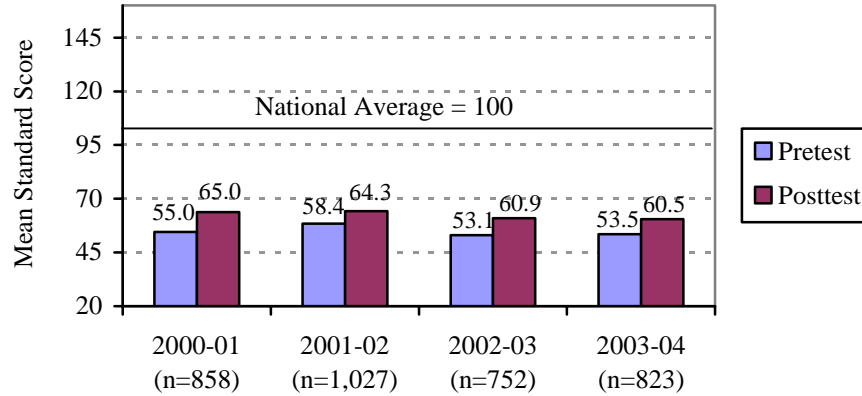
Figure 19: Four-Year Comparison for AISD English-Only Pre-K Students Tested on PPVT-III, 2000-01 through 2003-04



Source: AISD Program Evaluation PPVT-III Records, 2000-01 through 2003-04

English language instruction is required each day in the bilingual classrooms to accelerate English language acquisition. Because English is the second language for Spanish LEP students, the average pre- and posttest scores on the PPVT-III are very low for these students. Spanish LEP students are tested in English to measure growth in English language acquisition. The 2003-04 average PPTV-III posttest score (60.5 standard score points) for Spanish LEP students was the lowest of the past four years. Figure 20 shows a four-year comparison for Spanish-language pre-K students tested with the PPVT-III.

Figure 20: Four-Year Comparison for AISD Spanish Language Prekindergarten Students Tested on PPVT-III, 2000-01 through 2003-04

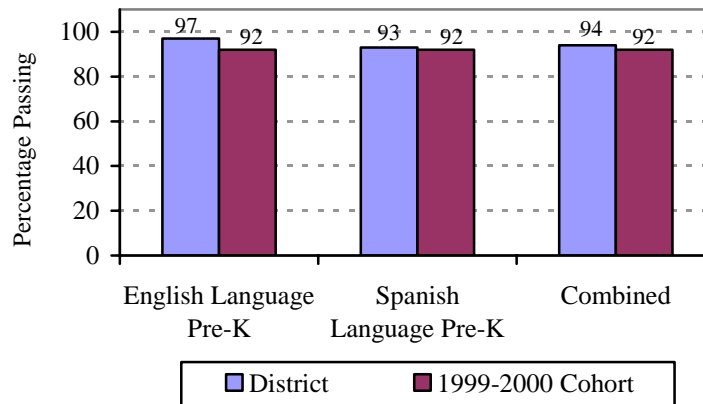


Source: AISD Program Evaluation PPVT Records, 2000-01 through 2003-04

Long-Term Impact -Multi-Year Comparisons

A longitudinal study was conducted using PPVT-III/TVIP scores of students who attended AISD prekindergarten in 1999-2000 and their 2004 Grade 3 TAKS reading results. 2004 TAKS reading scores were matched for 935 (414 Spanish language and 521 English language) students who attended prekindergarten in 1999-2000. The 1999-2000 cohort had a lower passing rate (92%) than the district (97%) on 2004 English TAKS reading. However, the cohort had a passing rate (92%) similar to that of the district (93%) on 2004 Spanish TAKS. It is important to remember that the prekindergarten students qualify for the program because of low income and/or LEP. (Note: For reference, in 2003-04, 45% of prekindergarten students qualified for both criteria.) Figure 21 shows the comparison of the 1999-2000 cohort of prekindergarten who had a score on 2004 Grade 3 TAKS reading.

Figure 21: 2004 Grade 3 TAKS Reading Percentage Passing for a 1999-2000 Cohort of Prekindergarten Students (N=935)



Source: AISD Program Evaluation PPVT-III/TVIP, 2000-01 through 2003-04 & 2004 TAKS Reading Data

In 1999-2000, AISD provided both half-day and full-day programs for pre-K students. The 2004 Grade 3 TAKS reading passing rates of these former full-day and half-day prekindergarten students with valid PPVT-III/TVIP pre- and posttest scores were examined to

determine if there was any difference in passing rates for students who attended half-day and full-day prekindergarten during 1999-2000. There was a slightly higher percentage passing (92%) for 1999-2000 full-day Spanish language students than half-day students (91%), but no difference for English language students. Because there have been four years of instruction since these grade 3 students were in prekindergarten, it is not possible to say that the full-day program had more of an impact than half-day, but previous studies have indicated that the full-day program was especially beneficial for Spanish language prekindergarten students.

The effect of instruction since prekindergarten was examined by looking at the Grade 3 TAKS reading performance of former prekindergarten students who completed prekindergarten with below average (below 85 standard score points), average (85-115 points), or above average (above 115 points) performance on the PPVT-III or TVIP. An analysis of these data indicate the following:

- For the 1999-2000 cohort of Spanish language students who had a valid 2004 Grade 3 TAKS reading score, 86% of those below average (<85 standard score points), 94% of those in the average range (85-115 points), and 100% of those above average (>115 points) on the TVIP posttest passed TAKS reading. Of these 414 Spanish language students in the 1999-2000 prekindergarten cohort, 259 (63%) took Spanish TAKS reading and 155 (37%) took English TAKS reading.
- For the 1999-2000 cohort of English language students who had a valid 2004 Grade 3 TAKS reading score, 82% of those below average (<85 standard score points), 93% of those in the average range (85-115 points), and 100% of those above average (>115 points) on the PPVT-III posttest passed TAKS reading.

The national average on both the PPVT-III and the TVIP is 100 standard score points. An analysis of the 1999-2000 cohort of prekindergarten students indicated that those who score *at or above 100 standard score points* at the end of prekindergarten had the greatest success on the 2004 TAKS Grade 3 reading test. For the English language cohort students (n=188) who scored 100 or above on the PPVT-III posttest in 1999-2000, 98% (n=184) passed 2004 TAKS reading. For Spanish language cohort students (n=236) who scored 100 or above on the TVIP posttest, 99% (n=234) passed 2004 TAKS reading.

Program Manager Comments

The administrative supervisor for prekindergarten, Anita Uphaus, responded to survey questions about the prekindergarten program. Mrs. Uphaus said that the major areas of focus in prekindergarten classrooms during 2003-04 included the following:

- Use of the new textbook adoption materials, DLM *Early Childhood Express*;
- Use of new instructional planning guides (IPGs) that were created to align the new textbook system to the district curriculum requirements; and,
- Organization of the pre-K team leaders from each campus to be the “conduit” for information and training at the campus level.

Strengths of the Program

According to Mrs. Uphaus, a major strength of the AISD prekindergarten program is providing full-day pre-K for all eligible students. More emphasis has been placed on prekindergarten education in AISD in the past few years, which is evidenced in full-day classes, a defined curriculum focus, and instructional planning guides for prekindergarten. In

addition, certified teachers trained in early childhood teaching and learning strategies are provided for prekindergarten classrooms.

In 2003-04, AISD also participated in a collaborative effort, through the Texas Center for Early Childhood Development, that paired the district with Head Start and local childcare agencies (a childcare coordination project originating in Senate Bill 76). Pre-K teachers from eight AISD campuses (Andrews, Cowan, Dawson, Pecan Springs, Ridgetop, Rodriguez, Sanchez, and Winn) were chosen to participate in the Texas Early Education Model (TEEM) Demonstration Project. This is a state project to achieve higher levels of school readiness in cost effective ways.

Also, the teachers have repeatedly commented about some of the strengths of the new curriculum adoption to Mrs. Uphaus, including the following:

- The system is the same for both Spanish and English classrooms.
- The system supports a balanced program integrating basic content areas.
- The teacher guides are well organized and follows a nine-week cycle, which correlates, well to the reporting periods, and include state curriculum requirements.
- The system contains strong curriculum support materials for both teacher and student use including quality trade books, multiple instructional resources, and CD-ROMs for mathematics and recordkeeping.

Major Challenges

With the expansion of the full-day program to all prekindergarten classes in 2002-03, Mrs. Uphaus indicated that there were still many challenges associated with the continued growth in student population in 2003-04. In fact, the 2003-04 enrollment was the largest ever for prekindergarten in AISD. Some of those challenges include the following:

- Finding certified bilingual teachers;
- Maintaining a reasonable teacher/student ratio in every classroom;
- Increasing teacher commitment to attending training sessions; and
- Addressing increased collaboration efforts with childcare agencies outside the district.

Areas for Program Improvement

There are many program improvements planned for 2004-05, Mrs. Uphaus said. The leadership duties for the prekindergarten program will be shared between the administrative supervisor and a curriculum specialist, Brian Mowry, in 2004-05. According to Mrs. Uphaus, "This will support a more concentrated focus on teacher training and curriculum implementation while allowing the supervisor to address the increased program requirements and collaboration initiatives." Other program improvements include the following:

- A group of 10 teachers have worked together to design a student assessment that correlates to the IPGs and the *Prekindergarten Report to Parents*. These teachers will pilot and refine the assessment during the school year. Districtwide training will be provided for all pre-K teachers before the 2005-06 school year to allow the new assessment to be expanded to all prekindergarten classrooms next year.
- A principal focus group has been formed through the leadership of the Associate Superintendent for Elementary Education. This group will assist in guiding decisions and providing support for the prekindergarten program.

- New prekindergarten teacher training sessions will be held bimonthly to address district expectations and provide support.
- Professional development will be reviewed and teacher suggestions for training will be added.

SUMMARY

During 2003-04, the AISD prekindergarten program continued to grow and change. With growth came challenges of funding, hiring enough certified teachers, and providing meaningful professional development. Along with a growing prekindergarten population, teachers learned a new state-provided curriculum and used the corresponding district-developed instructional planning guides (IPGs). Amidst the growth and change, however, student progress in language and literacy and mathematics in 2003-04 remained consistent with 2002-03 results.

Program effectiveness in language and literacy for prekindergarten was determined by gains from pretest to posttest on the English language *Peabody Picture Vocabulary Test-III* (PPVT-III) and the Spanish language *Test de Vocabulario en Imágenes Peabody* (TVIP). Any gain greater than zero on these assessments indicates that the student's performance improved compared to the national average. Major findings relating to language development include the following:

- Eighty-one percent of all Spanish language students and 67% of all English language students made gains when tested in their native language.
- Both English language and Spanish language students had an average posttest score of 95.7 standard score points, only 4.3 standard score points short of the national average of 100.
- Eighty-one percent (n=1,395) of all students scored in the average or above average range at the posttest when tested in their native language.
- Forty percent (42% in 2002-03) of the 2003-04 prekindergarten students were at or above the national average of 100 at the posttest when tested in their native language.
- Evidence of accelerated learning for English language students is seen by the growth in receptive vocabulary of 12 months in a 7-month period of instruction.
- Evidence of accelerated learning for Spanish LEP students is seen by the growth in receptive vocabulary of 15 months in a 7-month period of instruction.

Because there is no formal mathematics assessment for pre-K–grade 2 in AISD at this time, students' mathematics ratings on the *Prekindergarten Report to Parents* were used to determine progress in mathematics during prekindergarten. According to this informal mathematics assessment, 73% of students made progress in mathematics during prekindergarten.

In 2003-04, 217 (83%) teachers attended 3,001 hours of professional development related to prekindergarten instruction, which is almost triple the number of 2002-03 training hours (1,072 hours) for prekindergarten teachers. Seventy-three percent (n=159) of these teachers attended more than one training session. Prekindergarten teachers who attended training had an average of 13.8 hours of training.

A longitudinal study using PPVT-III/TVIP scores of students who attended AISD prekindergarten in 1999-2000 and their 2004 Grade 3 TAKS reading results was conducted. TAKS 2004 reading scores were matched for 935 (414 Spanish language and 521 English language) students who attended prekindergarten in 1999-2000. The 1999-2000 cohort had a lower passing rate (92%) than the district (97%) on 2004 English TAKS reading. However, the cohort had a passing rate (92%) similar to that of the district (93%) on 2004 Spanish TAKS reading. Prekindergarten students are served based on a greater need than the district population.

The national average on both the PPVT-III and the TVIP is 100 standard score points. An analysis of the 1999-2000 cohort of prekindergarten students indicated that those who scored at or above 100 standard score points at the end of prekindergarten had the greatest success on 2004 TAKS Grade 3 reading. For the English language cohort students (n=188) who scored 100 or above on the PPVT-III posttest in 1999-2000, 98% (n=184) passed the 2004 TAKS Grade 3 reading. For Spanish language cohort students (n=236) who scored 100 or above on the TVIP posttest, 99% (n=234) passed 2004 TAKS Grade 3 reading. A review of this year's PPVT-III/TVIP average range data indicate the following:

- Eighty-one percent (n=1,395) of all students scored in the average or above average range at the posttest when tested in their native language.
- Forty percent (42% in 2002-03) of the 2003-04 prekindergarten students were at or above the national average of 100 at the posttest when tested in their native language.

RECOMMENDATIONS

Prekindergarten teachers and the administrative supervisor for prekindergarten identified some areas for improvement in the program. As state and national expectations become more rigorous, the educators of young children face many challenges. The district should strive for developmentally appropriate practices for prekindergarten while supporting the academic rigor required for prekindergarten students to close the achievement gap. Some of the recommendations listed are already in progress and need continued support from the district.

- Refine the teacher-made pilot language and mathematics assessment developed during 2003-04 and plan teacher training to implement the assessment in 2004-05.
- Provide quality literacy and mathematics professional development for pre-K teachers to ensure consistency and quality in curriculum and instruction, even in the face of a limited budget.
- Increase teacher commitment to attending training sessions.
- Provide new prekindergarten teacher training sessions to address district expectations and provide support.
- Work with the AISD Bilingual Department to accelerate English language acquisition for Spanish LEP prekindergarten students.
- Work with district technology staff to find resources to upgrade pre-K classroom computer hardware to be compatible with the new curriculum technology.
- Find a cost-efficient way to assess all pre-K students with instruments related to future success on TAKS.

Growth in language/literacy and math was maintained in 2003-04 even with more students and teachers, a new curriculum, and new instructional planning guides. In 2004-05 with these new tools and quality training, the prekindergarten teachers will be challenged to close the achievement gap even more.

APPENDICES

Appendix A: Prekindergarten Expansion Grant, Cycle 8 Program Evaluation Plan for Austin ISD

1. How will the program demonstrate evidence of gains in cognitive development, especially in pre-reading and language, and mathematics?

Language Arts/Pre-Reading - Program effectiveness for prekindergarten language arts will be determined by gains on the English language *Peabody Picture Vocabulary Test-III* (PPVT-III) and the Spanish language *Test de Vocabulario en Imágenes Peabody* (TVIP). The PPVT-III and TVIP measure knowledge of receptive (hearing) vocabulary. To measure achievement gains for prekindergarten students, the PPVT-III and the TVIP will be administered in the fall and in the spring to a random sample of students in each prekindergarten classroom. Gains will be calculated based on the pre- and posttest scores. All students are tested in English; Spanish LEP students are also tested in Spanish. Test data will be reported for full-day programs by language. In 2003-04, the district will be examining how to assess literacy learning using the new curriculum, *DLM Early Childhood Express*.

Mathematics – In 2003-04, the primary mathematics specialist will assist with the development of a prekindergarten mathematics assessment that will be aligned with the *Prekindergarten Curriculum Guidelines*. A sample of teachers who have participated in TEXTEAMS training (25% of AISD prekindergarten teachers have been trained) will be asked to pilot the assessment with their students in fall 2003 and spring 2004. The assessment will be given in small groups and will use topics of higher interest that can be connected to the lives of prekindergarten students and to the curriculum. The new *DLM Early Childhood Express* curriculum will be a resource for the development of the assessment instrument.

2. How will the program demonstrate the effectiveness of activities of the expanded full-day prekindergarten in achieving the aims of the program?

Professional development for prekindergarten teachers will be aligned with the *Prekindergarten Curriculum Guidelines* and the new district curriculum, *DLM Early Childhood Express*. Teachers will be surveyed to examine if professional development prepared them to use the new curriculum effectively; and if district efforts to support prekindergarten instruction (i.e., instructional planning guides and curriculum matrices) have impacted student learning.

Informal classroom observations will be conducted to view the implementation of the new DLM curriculum. Teachers will be surveyed for their feedback about the ability of the new curriculum to provide the quality and quantity of resources necessary for an effective full-day prekindergarten program.

3. **How will the program determine the impact, short-term and long-term, of the activities of the expanded full-day prekindergarten on the participants?**

Short-term impact – Using the PPVT-III and the TVIP data from 2003-04 and prior years, comparisons between current year gains in receptive vocabulary for all students tested will be made to previous years' gains. The mathematics pretest and posttest pilot data will show current year progress in mathematics for prekindergarten students.

Long-term impact- A longitudinal study using PPVT-III/TVIP scores of students who attended AISD prekindergarten in 1999-2000 and their 2004 Grade 3 TAKS reading results will be conducted. The 2004 Grade 3 TAKS reading passing rates of former full-day and half-day prekindergarten students with valid PPVT-III/TVIP pre- and posttest scores will be examined to determine if there is any difference in passing rates for students who attended half-day and full-day prekindergarten. The effect of instruction since prekindergarten will be examined by looking at the Grade 3 TAKS reading performance of former prekindergarten students who completed prekindergarten below average (below 85 standard score points), average (85-115 points), and above average (above 115 points) on the PPVT-III or TVIP.

**Appendix B: 2003-04 AISD Prekindergarten Programs;
Number of Students and Campus Funding**

School	Number of Students Served	Title I Elementary School	Pre-K Expansion Grant Funding
Allan	68	x	x
Allison	63	x	x
Andrews	102	x	x
Barrington	111	x	x
Barton Hills	10		
Becker	37	x	x
Blackshear	56	x	x
Blanton	79	x	
Boone	32		
Brentwood	31		x
Brooke	40	x	x
Brown	91	x	x
Campbell	48	x	x
Casey	83		x
Casis	14		
Cook	126	x	
Cowan	32		
Cunningham	45	x	x
Davis	34		
Dawson	59	x	x
Doss	23		
Galindo	128	x	x
Govalle	31	x	x
Graham	93	x	x
Harris	95	x	x
Hart	83	x	
Houston	127	x	x
Jordan	100	x	x
Joslin	39	x	
Kocurek	43		x
Langford	122	x	x
Linder	155	x	x
Maplewood	38	x	x
Mathews	47	x	x
McBee	127	x	
Menchaca	45		x
Metz	76	x	x
Norman	93	x	x
Oak Hill	33		x
Oak Springs	46	x	x
Odom	87	x	
Ortega	38	x	x

School	Number of Students Served	Title I Elementary School	Pre-K Expansion Grant Funding
Palm	105	x	x
Patton	30		
Pecan Springs	95	x	x
Pickle	106	x	x
Pillow	54		
Pleasant Hill	69	x	
Reilly	39	x	x
Ridgetop	47	x	x
Rodriguez	91	x	
St. Elmo	51	x	
Sanchez	73	x	x
Sims	66	x	x
Summitt	34		x
Sunset Valley	68	x	x
Travis Heights	50	x	x
Walnut Creek	158	x	x
Widen	92	x	x
Williams	74	x	
Winn	85	x	x
Wooldridge	131	x	x
Wooten	83	x	x
Zavala	47	x	x
Zilker	21	x	x
Total	4,499	49	47*

Source: AISD Program Evaluation Pre-K Student Records, 2003-04

Note: Elementary schools without pre-K programs in 2003-04 were Baranoff, Bryker Woods, Gullett, Highland Park, Hill, Kiker, Lee, Mills, and Pease. Hill and Mills will add prekindergarten in 2004-05.

* 47 schools were part of *the Prekindergarten Expansion Grant* as of 2001-02. The 18 additional schools that moved to full-day programs after 2002-03 are not part of the grant. Local and federal funds are used to supplement the prekindergarten budget.

Appendix C: Average PPVT-III and TVIP Pretest, Posttest, and Gain Scores by School (PPVT-III for English-Only & TVIP for Spanish LEP Students), 2003-04

School	Average Pretest PPVT-III	Average Posttest PPVT-III	Average Gain PPVT-III	Average Pretest TVIP	Average Posttest TVIP	Average Gain TVIP
Allan	91.4	96.3	4.8	82.7	100	17.3
Allison	91.0	93.9	3.0	89.8	98.6	8.8
Andrews	90.7	92.0	1.3	83.8	97.8	14.0
Barrington	79.1	88.8	9.7	85.8	90.1	4.3
Barton Hills	112.5	112.0	-0.5	97.0	112.0	15.0
Becker	82.4	89.4	7.0	84.3	80.6	-3.7
Blackshear	84.9	92.8	7.9	80.3	99.2	18.9
Blanton	91.4	95.3	3.9	85.2	95.7	10.5
Boone	101.5	104.8	3.3	-	-	-
Brentwood	98.5	107.1	8.6	91.4	89.3	-1.1
Brooke	90.1	97.0	6.9	96.6	94.7	8.1
Brown	80.4	85.8	5.3	80.7	84.3	3.6
Campbell	88.5	92.3	3.8	-	-	-
Casey	96.1	94.3	-1.9	89.0	84.4	-4.6
Casis	98.1	105.0	6.9	-	-	-
Cook	85.0	95.1	10.0	86.4	97.7	11.4
Cowan	83.3	84.8	1.4	89.0	91.5	2.5
Cunningham	85.3	93.1	7.9	84.9	81.6	-3.3
Davis	99.8	106.2	6.3	-	-	-
Dawson	92.2	98.1	5.9	82.6	97.8	15.1
Doss	87.5	97.9	10.5	-	-	-
Galindo	97.9	99.5	1.6	90.6	101.9	11.3
Govalle	90.8	96.9	6.1	73.5	84.2	10.7
Graham	93.4	94.4	1.0	88.5	101.2	12.7
Harris	88.1	95.7	7.6	86.6	97.1	10.5
Hart	86.8	95.4	8.7	79.8	86.9	7.1
Houston	86.1	92.5	6.4	84.8	102.5	17.7
Jordan	88.6	93.6	5.0	85.0	87.8	2.8
Joslin	94.1	101.1	7.0	80.1	89.1	9.0
Kocurek	92.6	95.9	3.3	81.1	98.4	17.3
Langford	92.1	96.9	4.8	83.3	99.4	16.1
Linder	86.6	88.8	2.2	82.8	98.3	15.5
Maplewood	96.9	98.6	1.6	-	-	-
Mathews	92.5	105.0	12.5	-	-	-
McBee	89.4	91.7	2.4	82.2	9.03	8.1
Menchaca	89.1	86.7	-2.4	-	-	-
Metz	91.0	95.5	4.5	87.9	99.8	11.9
Norman	85.7	93.1	7.4	81.8	89.3	7.5
Oak Hill	96.6	95.5	-1.1	-	-	-
Oak Springs	88.9	95.1	6.2	-	-	-
Odom	93.3	97.9	4.6	80.5	101.4	20.9
Ortega	99.1	103.5	4.4	-	-	-
Palm	101.3	103.1	1.8	86.4	103.2	16.8

School	Average Pretest PPVT-III	Average Posttest PPVT-III	Average Gain PPVT-III	Average Pretest TVIP	Average Posttest TVIP	Average Gain TVIP
Patton	82.0	91.0	9.0	91.0	87.5	-3.5
Pecan Springs	84.4	90.6	6.2	81.3	90.0	8.7
Pickle	79.4	89.7	10.4	85.1	97.5	12.4
Pillow	97.3	102.1	4.9	--	-	-
Pleasant Hill	93.7	99.6	5.9	84.1	97.3	13.2
Reilly	83.0	92.0	9.0	86.3	101.4	15.1
Ridgetop	92.1	96.9	4.8	70.0	101.0	31.0
Rodriguez	86.5	91.1	4.6	83.3	98.6	15.3
St. Elmo	94.2	93.3	-0.9	84.3	94.4	10.1
Sanchez	101.1	107.6	6.5	87.5	102.5	15.1
Sims	89.0	92.7	3.7	84.8	98.7	13.9
Summitt	92.0	99.0	7.0	103.2	96.8	-6.4
Sunset Valley	99.1	101.7	2.6	85.0	96.1	11.1
Travis Hts.	98.0	103.6	5.6	87.2	93.4	6.2
Walnut Creek	83.4	92.6	9.2	86.7	100.4	13.7
Widen	87.0	88.2	1.2	81.6	96.3	14.8
Williams	91.7	96.6	4.9	84.6	75.0	-9.6
Winn	91.6	97.1	5.5	85.9	99.6	13.7
Wooldridge	84.4	91.3	6.9	85.4	95.3	9.9
Wooten	89.0	93.4	4.4	88.4	96.5	8.2
Zavala	85.7	94.3	8.5	81.7	96.8	15.1
Zilker	87.3	94.0	6.7	88.8	93.7	4.8
2003--04Average	90.7	95.7	5.0	84.6	95.7	11.1
National Average	100			100		

Source: AISD Program Evaluation PPVT/TVIP Records, 2003-04

Notes: Pretest, Posttest, and Gain results are expressed in standard score points.

PPVT-III scores are for English Language Students and TVIP scores are for Spanish Language Students.

Because a sample of students at each campus was tested, some schools do not have TVIP scores because a bilingual class was not tested. Casis and Doss had no Spanish LEP students.

Appendix D: Summary of 2003-04 Prekindergarten Teacher Survey

143 prekindergarten teachers rated the DLM *Early Childhood Express* curriculum and training in May 2004 by the following scale: 4=Excellent;; 3=Good; 2=Fair; 1=Poor. Average responses are given below.

Curriculum Questions	Number of Responses	Average Response
1. How well do the DLM <i>Early Childhood Express</i> curriculum resources support the following subject areas?		2.7 Overall
Language & Literacy	142	3.0
Mathematics	142	2.7
Science	143	2.6
Social Studies	143	2.6
Technology Applications	137	2.6
Physical Education	136	2.4
2. How well do the DLM <i>Early Childhood Express</i> teacher resources support teaching and learning in prekindergarten classrooms?		2.9 Overall
Teacher's Guide	143	3.1
Teacher's Resource Anthology	141	3.1
Teacher Resource Guide - Home Connections	140	2.9
Teacher Resource Guide - English Phonics	126	2.8
Teacher Resource Guide - Spanish Phonics	83	2.6
Math Resource Package	140	2.8
Assessment Resource Guide	141	2.6
3. How well do the DLM <i>Early Childhood Express</i> curriculum student materials support instruction?		3.2 Overall
Sequencing Cards	140	3.1
Alphabet Wall Cards	141	3.2
Oral Language Development Cards	142	3.2
Big Book Package	142	3.3
Listening Center Little Book Package	142	3.3
Music CD-ROMs	140	3.3
Photo Library CD-ROM	131	2.9
Manipulative Package	140	2.9

Curriculum Questions	Number of Responses	Average Response
4. How well do the English language curriculum and materials support instruction for English language students?	118	3.0
5. How well do the Spanish language curriculum and materials support instruction for Spanish language students?	73	2.8
6. How well does the curriculum coordinate with the Prekindergarten Guidelines?	142	3.3
7. How well do the district IPGs coordinate with the new curriculum?	139	3.2
8. How would you rate the professional development to support the new curriculum?	138	2.7
9. How well have district efforts (e.g., IPGs, curriculum matrices) to support prekindergarten instruction impacted student learning?	127	2.9

10. What additional professional development opportunities are needed to support the new curriculum?

See Page 12 for summarized responses to this question.

11. What do you like best about the new DLM Curriculum?

See Page 16 for summarized responses to this question.

12. Are there curriculum areas that need additional support? If yes, please give suggestions.

See Page 16 for summarized responses to this question.

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