



Austin Independent School District

Department of Program Evaluation

Publication Number 08.63
October 2009

Janice Curry
Evaluation Specialist

AISD K–8 ACCELERATED READING AND MATHEMATICS INSTRUCTION EVALUATION REPORT, 2008–2009

The Student Success Initiative (SSI) was created by the 76th Texas Legislature (1999) to ensure that all students receive the instruction and support they need to be academically successful in reading and mathematics (math). For SSI grade advancement during the 2008–2009 school year, students were required to pass the Texas Assessment of Knowledge and Skills (TAKS) grade 3 reading test to be promoted to grade 4, to pass the grade 5 reading and math tests to be promoted to grade 6, and to pass the grade 8 reading and math tests to be promoted to grade 9 (Texas Education Agency [TEA], 2008a). In 2009, SSI students had three opportunities to pass TAKS reading (grades 3, 5, and 8) or TAKS math (grades 5 and 8) tests.

The state funding sources established to support SSI were the Accelerated Reading Instruction (ARI) and Accelerated Mathematics Instruction (AMI) entitlements. The state ARI/AMI allocation for AISD was \$2,739,951, a decrease of 18% from the 2007–2008 allocation of \$3,342,600. To supplement the ARI/AMI entitlement, campus staff used other resources (e.g., local funds and such grant funds as Reading First, Optional Extended Year Program, 21st Century, Title I, and Prime Time) to provide intervention opportunities for K–8 students who were identified as being at risk for reading or math difficulties, but who were not served by the ARI/AMI grant.

This report summarizes for the Austin Independent School District (AISD) Board of Trustees all district intervention efforts to provide academic support to K–8 students at risk for reading or math difficulties, regardless of funding source. Questions to be addressed in this report include the following:

- What were the results of 2009 TAKS testing for intervention students?
- How do these results compare to the two prior years?
- How will the need for reading and math intervention be met in future years?

PROGRAM DESCRIPTION

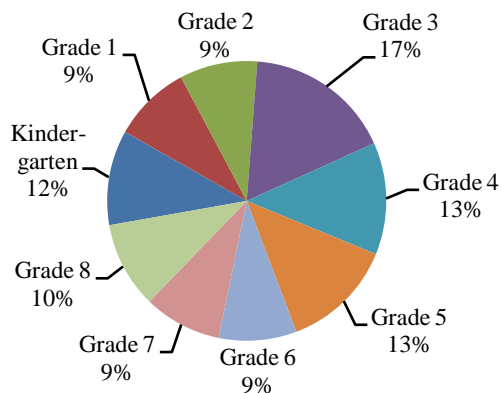
The AISD intervention model incorporates a three-tiered approach for struggling learners: in the classroom (Level I); before, during, or after school (Level II); and summer school for students in targeted grades who did not pass TAKS reading or TAKS math (Level III) (AISD, 2005). Although all K–8 students who have been identified as at risk for reading and/or math difficulties are eligible, Texas Education code TEC §28.006 requires districts to provide accelerated instruction to a student after he or she has not met the standard on a TAKS test required by SSI (TEA, 2008a). Therefore, in 2008–2009, the district emphasized reading intervention at grades 3, 5, and 8 and math intervention at grades 5 and 8. Eligibility for intervention was based on poor performance on district and/or state assessments.

STUDENT DEMOGRAPHICS

During the 2008–2009 school year, 23,713 AISD K–8 students participated in reading and/or math interventions, representing a range of funding sources. This unduplicated count represents a 1% increase in the number of students served, compared with the number in 2007–2008 ($n = 23,491$). According to AISD student records, demographic and enrollment information for K–8 reading and math intervention students and district K–8 students in 2008–2009 included the following:

- Fifty-three percent ($n = 12,549$) were male students (compared with 52% for district).
- Eighty-five percent ($n = 20,246$) were from low-income families (compared with 68% for district).
- Forty-three percent ($n = 10,085$) were English language learners (ELLs) (compared with 52% for district).
- Hispanic students comprised the largest ethnic group ($n = 17,575$, or 74%), followed by African American ($n = 3,455$, or 15%), Anglo/other ($n = 2,351$, or 10%), and Asian ($n = 332$, or 1%) students (compared with 62% Hispanic, 11% African American, 24% Anglo/other, and 3% Asian for the district).
- Seventy-seven percent of accelerated instruction was provided in English, 16% in Spanish, and 7% in a combination of English and Spanish.
- The grade distribution for reading and math intervention students in K–8 shows that a greater percentage (17%) of grade 3 students participated (Figure 1).

Figure 1. Reading and Math Intervention Students, by Grade, 2008–2009



Source. DPE ARI/AMI/other intervention participation records, 2008–2009

INTERVENTION SERVICES

According to AISD's beginning-of-year benchmark (BoY) test data and 2008 TAKS scores, 24% ($n = 15,080$) of all AISD K–8 students were eligible for reading intervention and 31% ($n = 14,365$) of students in grades 2 through 8 were eligible for math intervention in 2008–2009. Based on assessment data, the highest-need students were selected for interventions funded by ARI or AMI. Of the 23,713 K–8 students who received accelerated instruction outside of regular classroom instruction, 8,647 (36%) students participated in both reading and math interventions, for a total of 32,360 intervention services during 2008–2009. Of the total

number of K–8 interventions provided, eligibility and participation information included the following:

- Fifty-eight percent (n = 18,735) of interventions were for reading.
- Seventy-one percent (n = 22,887) of interventions were for elementary students.
- ARI provided funding for 32% (n = 5,947) of reading interventions.
- AMI provided funding for 59% (n = 7,981) of math interventions.
- Sixty-three percent (n = 14,963) of K–8 intervention students participated in more than one intervention opportunity.

Table 1 presents a duplicated count of students comprising the total number of interventions provided. Numbers are unduplicated within a subject. For example, if a student participated in ARI and other reading interventions, that student was counted only in the ARI category. The same was true for math intervention students. Thus, students could be counted once in reading and/or once in math interventions.

Table 1. Accelerated Reading and Math Instruction Participants, by Grade Level and Type of Intervention, 2008–2009

| Grade | Students served by type of intervention | | | | | | All interventions |
|---------------|---|-----------------|---------------|--------------|--------------|---------------|-------------------|
| | # ARI | # Other reading | Total reading | # AMI | # Other math | Total math | |
| K | 61 | 2,447 | 2,508 | 0 | 176 | 176 | 2,684 |
| 1 | 123 | 1,963 | 2,086 | 11 | 294 | 305 | 2,391 |
| 2 | 103 | 1,797 | 1,900 | 27 | 428 | 455 | 2,355 |
| 3 | 1,755 | 1,596 | 3,351 | 1,626 | 972 | 2,598 | 5,949 |
| 4 | 1,180 | 1,379 | 2,559 | 1,337 | 866 | 2,203 | 4,762 |
| 5 | 1,350 | 1,017 | 2,367 | 1,777 | 602 | 2,379 | 4,746 |
| 6 | 507 | 864 | 1,371 | 829 | 815 | 1,644 | 3,015 |
| 7 | 306 | 882 | 1,188 | 982 | 816 | 1,798 | 2,986 |
| 8 | 562 | 843 | 1,405 | 1,392 | 675 | 2,067 | 3,472 |
| Totals | 5,947 | 12,788 | 18,735 | 7,981 | 5,644 | 13,625 | 32,360 |

Source. DPE ARI/AMI/other intervention participation records, 2008–2009

Note. Numbers are unduplicated within subject, but a student could be counted in both subjects.

STUDENT ACADEMIC PERFORMANCE

The effectiveness of the AISD reading and math intervention program was evaluated by reviewing end-of-year (EoY) assessment data. For K–2 students, Developmental Reading Assessment (DRA), Texas Primary Reading Inventory (TPRI), and the district-developed benchmark grade 2 math assessment were used to determine whether students were on grade level. (No district or state math assessments exist for students in grades K–1.) TAKS reading and TAKS math results for 2009 were used to determine the effectiveness of interventions for students in grades 3 through 8. This section provides student achievement data for all K–8 students who participated in reading and/or math interventions during 2008–2009.

K–2 INTERVENTION STUDENTS

Reading. During 2008–2009, 7,800 (32%) of all AISD students in grades K–2 were identified for reading intervention. Seventy percent of the kindergarten students who participated in reading interventions attended the 2009 ELL Summer School for prekindergarten and kindergarten students. Of the students in grades K–2 who received reading interventions and had EoY assessments, 50% (n = 3,078) were considered to be on grade level in reading by May 2009.

Math. Of the 813 grade 2 students identified on BoY benchmark test as being at risk for math difficulties, 455 (58%) participated in math interventions outside the classroom. Forty-nine percent (n = 213) of grade 2 intervention students had a score at or above 70% on the EoY benchmark test. The 481 K–1 students who participated in math interventions were recommended based on other criteria.

GRADE 3 THROUGH 8 INTERVENTION STUDENTS

Students in SSI grades and subjects received 36% of all K–8 reading and math intervention opportunities during 2008–2009. As a result of this focus, and after three administrations of TAKS, the percentages of SSI students passing TAKS were greater (78%) than the percentages of students passing in non-SSI grades and subjects (64%). As shown in Table 2, 75% of all intervention students in grades 3 through 8 passed in reading and 65% passed in math (compared with 72% and 60%, respectively, in 2007-2008). AISD percentages passing are shown for comparison.

Table 2. Intervention Students in Grades 3 through 8 Who Passed the 2009 TAKS, by Subject

| Grade | TAKS Reading | | | | TAKS Math | | | |
|--------------|-----------------------|--------------|------------|------------|-----------------------|--------------|------------|------------|
| | Intervention Students | | | AISD | Intervention Students | | | AISD |
| | # Tested | # Passed | % Passed | % Passed | # Tested | # Passed | % Passed | % Passed |
| 3 | 3,225 | 2,815 | 87% | 94% | 2,503 | 1,678 | 67% | 80% |
| 4 | 2,419 | 1,571 | 65% | 81% | 2,129 | 1,459 | 69% | 81% |
| 5 | 2,271 | 1,729 | 76% | 90% | 2,305 | 1,724 | 75% | 89% |
| 6 | 1,225 | 848 | 69% | 85% | 1,439 | 833 | 58% | 74% |
| 7 | 1,056 | 597 | 57% | 80% | 1,615 | 891 | 55% | 74% |
| 8 | 1,285 | 1,074 | 84% | 94% | 1,869 | 1,179 | 63% | 84% |
| Total | 11,481 | 8,634 | 75% | 88% | 11,860 | 7,764 | 65% | 81% |

Source. DPE ARI/AMI/other intervention participation records, 2008–2009 and 2009 TAKS files

Note. Bolded percentages were subject to SSI grade advancement requirements.

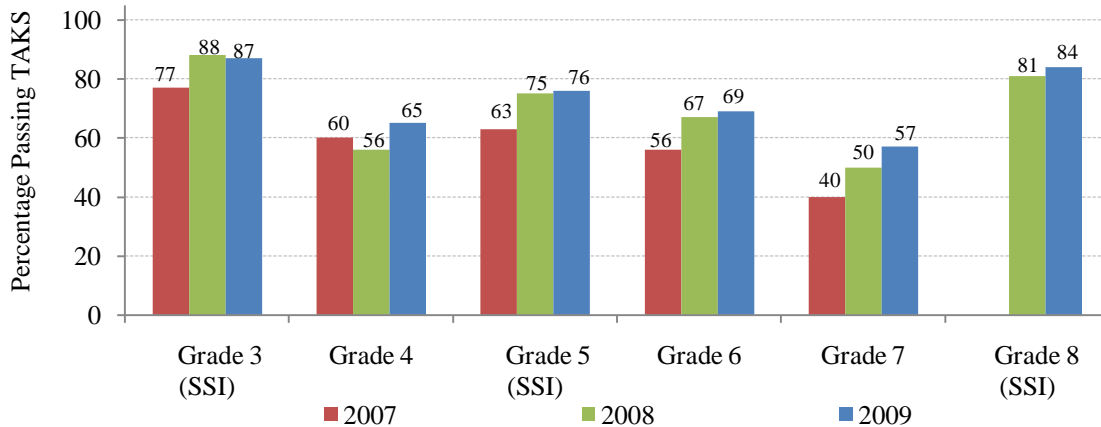
3-Year TAKS Summary for Intervention Students in Grades 3 through 8

The 2008–2009 school year was the second year for the full implementation of SSI in grades K–8. To evaluate the effectiveness of this year’s intervention efforts compared with that of prior years, three years of TAKS data for intervention students were examined and are presented in Figures 2 and 3. Findings for three years of TAKS reading and TAKS math passing percentages for intervention students in grades 3 through 8 included the following:

- With the exception of grades 3 and 4, the percentages of reading intervention students passing TAKS reading have increased each year (Figure 2).

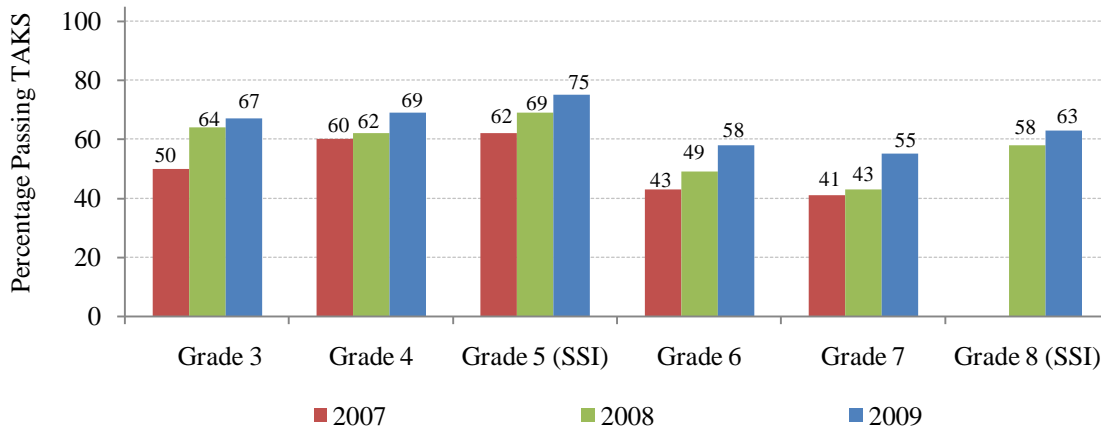
- The percentages of math intervention students passing TAKS math have increased in each grade and year (Figure 3).

Figure 2. Percentages of Grade 3 through 8 **Reading Intervention Students** Passing TAKS Reading, 2007 through 2009



Source. DPE ARI/AMI/other intervention participation records and TAKS files, 2007 through 2009
 Note. Grade 8 students did not participate in the SSI intervention in 2007.

Figure 3. Percentages of Grade 3 through 8 **Math Intervention Students** Passing TAKS Math, 2007 through 2009



Source. DPE ARI/AMI/other intervention participation records and TAKS files, 2007 through 2009
 Note. Grade 8 students did not participate in the SSI intervention in 2007.

AISD K–8 Students Who Did Not Pass TAKS in 2009 and in Previous Years

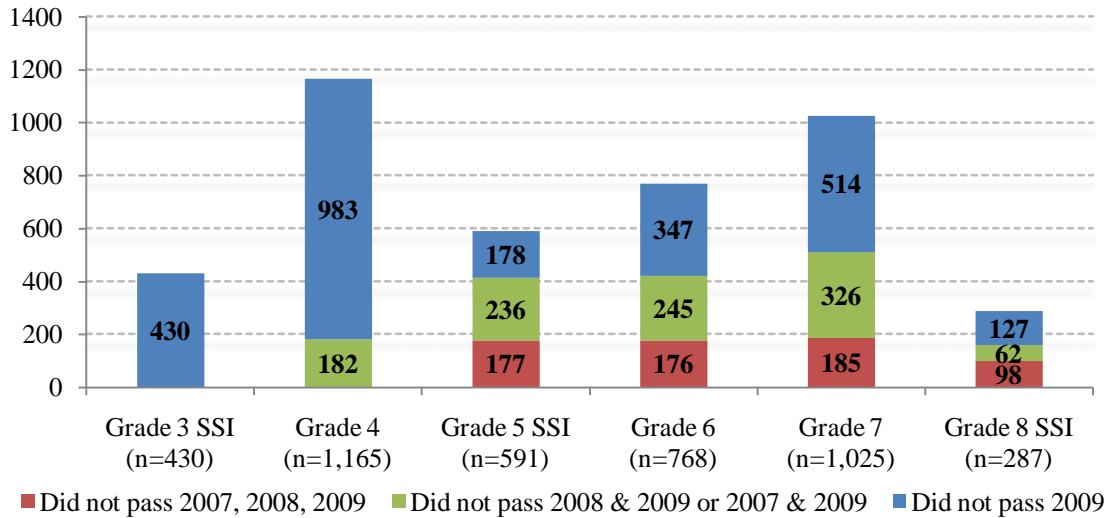
To understand the challenge of accelerating learning to enable students to pass TAKS after multiple years of not passing, three years of TAKS data were examined for students in grades 3 through 8 who did not pass 2009 TAKS tests. In 2009, 4,266 AISD students in grades 3 through 8 did not pass TAKS reading and 6,663 students did not pass TAKS math. Findings for AISD students who did not pass 2009 TAKS and who had three years of TAKS scores (e.g., grades 5 through 8) included the following:

- Twenty-four percent (n = 636) of students in grades 5 through 8 who did not pass

2009 TAKS reading also did not pass TAKS reading in the previous 2 years; and 33% (n = 869) of students did not pass TAKS reading in one of the prior two years (Figure 4).

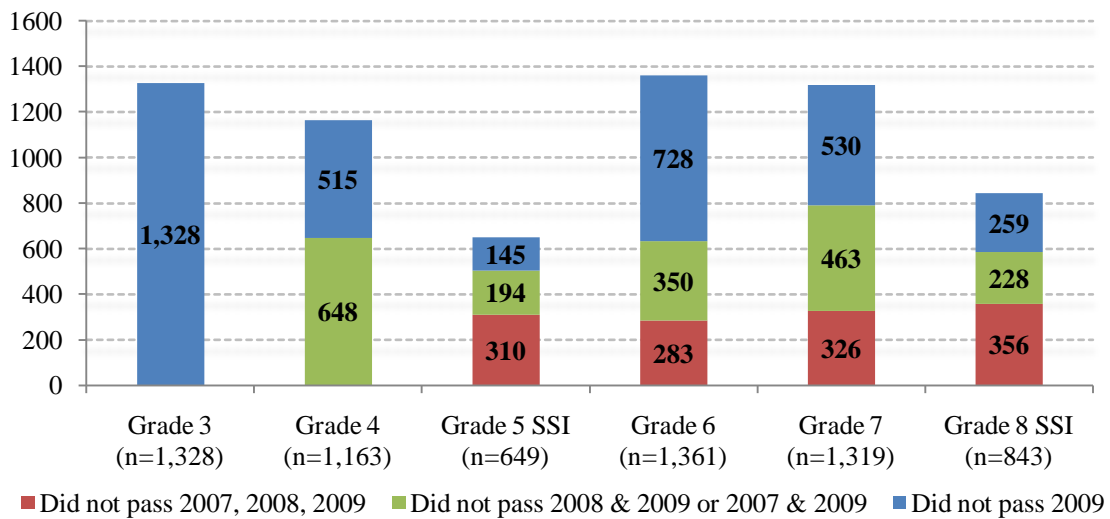
- Thirty-one percent (n = 1,275) of students in grades 5 through 8 who did not pass 2009 TAKS math also did not pass TAKS math in the previous 2 years; and 30% (n = 1,235) of students did not pass TAKS math in one of the prior two years (Figure 5).

Figure 4. AISD Students in Grades 3 through 8 Who Have Not Passed TAKS Reading for Multiple Years (2007, 2008, and 2009)



Source. AISD 2007, 2008, and 2009 TAKS reading records

Figure 5. AISD Students in Grades 3 through 8 Who Have Not Passed TAKS Math for Multiple Years (2007, 2008, and 2009)



Source. AISD 2007, 2008, and 2009 TAKS math records

SUMMER SCHOOL 2009

Summer school played an important role for SSI students in grades 3, 5, and 8 who prepared to take the third administration of TAKS in the summer of 2009. This section of the report examines the gains that were made during one month of intensive intervention efforts in June 2009. The data presented in this section were included in the aggregated data presented earlier in the report. More details of summer school are available in the *Summer School Evaluation Summary Report 2009* (DPE Publication Number 08.69).

ELEMENTARY SSI SUMMER SCHOOL

Overall, 29% (n = 490) of summer school students in grades 3 and 5 who took the June/July 2009 TAKS tests passed, compared with 25% in July 2008. Summer school grade 5 students' TAKS scores showed an increase from 2008 to 2009 in percentages passing in both subjects (Table 3). However, grade 3 summer school students' passing rates for the third administration of TAKS reading decreased from 39% in 2008 to 34% in 2009. Spanish TAKS results in each grade and in each subject decreased also.

Table 3. Summer School Students in Grades 3 and 5 Who Took and Passed TAKS Reading or Math, July 2008 and June/July 2009

| TAKS grade and Subject | July 2008 TAKS | | | June/July 2009 TAKS | | | Difference 2008 to 2009 |
|----------------------------|----------------|------------|------------|---------------------|------------|------------|-------------------------|
| | # Tested | # Passing | % Passing | # Tested | # Passing | % Passing | |
| Grade 3 reading | | | | | | | |
| English | 276 | 108 | 39% | 256 | 101 | 39% | 0 |
| Spanish | 201 | 79 | 39% | 163 | 41 | 25% | -14 |
| Total | 477 | 187 | 39% | 419 | 142 | 34% | -5 |
| Grade 5 reading | | | | | | | |
| English | 489 | 98 | 20% | 564 | 179 | 32% | +12 |
| Spanish | 71 | 18 | 25% | 72 | 17 | 24% | -1 |
| Total | 560 | 116 | 21% | 636 | 196 | 31% | +10 |
| Grade 5 math | | | | | | | |
| English | 541 | 108 | 20% | 500 | 137 | 27% | +7 |
| Spanish | 145 | 25 | 17% | 115 | 15 | 13% | -4 |
| Total | 686 | 133 | 19% | 615 | 152 | 25% | +6 |
| Summer school total | 1,723 | 436 | 25% | 1,670 | 490 | 29% | +4 |

Source. AISD 2008 and 2009 TAKS files and DPE summer school files

Grade 5 TAKS Analysis

In 2009, AISD returned to a longer instructional day for grade 5 students who needed to pass both TAKS tests during summer school. The 2009 summer schedule allowed grade 5 students who needed to pass both tests 2.5 hours of instruction in each subject compared with 2 hours of instruction per subject in 2008. Table 4 shows the numbers and percentages of grade 5 summer school students who took and passed TAKS reading and/or TAKS math by the subject of instruction provided in 2008 and in 2009. Passing percentages for grade 5 students increased by 10 percentage points in reading and by 6 percentage points in math from 2008 to 2009.

Table 4. Grade 5 Students Who Took and Passed TAKS Reading or Math, 2008 and 2009

| Grade 5 summer school subject & TAKS test | July 2008 TAKS | | | June/July 2009 TAKS | | | Difference 2008 to 2009 |
|---|----------------|------------|------------|---------------------|------------|------------|-------------------------|
| | # Tested | # Passed | % Passed | # Tested | # Passed | % Passed | |
| Reading only (TAKS reading) | 261 | 75 | 29% | 316 | 127 | 40% | +11 |
| Both subjects (TAKS reading) | 299 | 41 | 14% | 320 | 69 | 22% | +8 |
| Reading totals | 560 | 116 | 21% | 636 | 196 | 31% | +10 |
| Math only (TAKS math) | 387 | 103 | 27% | 295 | 96 | 32% | +5 |
| Both subjects (TAKS math) | 299 | 30 | 10% | 320 | 56 | 18% | +8 |
| Math totals | 686 | 133 | 19% | 615 | 152 | 25% | +6 |
| Grade 5 totals | 1,246 | 249 | 20% | 1,251 | 348 | 28% | +8 |

Source. AISD 2008 and 2009 TAKS files and DPE summer school files

GRADE 8 SSI SUMMER SCHOOL

Grade 8 students attended summer school at four middle school campuses to prepare for the third administration of the TAKS tests in 2009. Of the 845 grade 8 students who took the June/July 2009 administrations of the TAKS reading and math tests, 183 (22%) took both tests.

Overall, 32% of grade 8 students passed TAKS reading and 24% passed TAKS math during the third administration of the tests in 2009. Passing percentages for students taking both tests increased by 15 percentage points in reading and by 2 points in math from 2008 to 2009 (Table 5). The only group showing a decrease in percentage passing was grade 8 students who took only TAKS math (from 33% in 2008 to 29% in 2009).

Table 5. Grade 8 Students Who Took and Passed TAKS Reading or Mathematics, by Intervention Subject, in June/July 2009

| Summer school subject & TAKS test | July 2008 TAKS | | | June/July 2009 TAKS | | | Difference 2008 to 2009 |
|-----------------------------------|----------------|------------|------------|---------------------|------------|------------|-------------------------|
| | # Tested | # Passed | % Passed | # Tested | # Passed | % Passed | |
| Reading only (TAKS reading) | 49 | 14 | 29% | 60 | 23 | 38% | +11 |
| Both subjects (TAKS reading) | 178 | 26 | 15% | 183 | 54 | 30% | +15 |
| Reading totals | 227 | 40 | 18% | 243 | 77 | 32% | +14 |
| Math only (TAKS math) | 671 | 222 | 33% | 602 | 174 | 29% | -4 |
| Both subjects (TAKS math) | 178 | 12 | 7% | 183 | 16 | 9% | +2 |
| Math totals | 849 | 234 | 28% | 785 | 190 | 24% | -4 |
| Grade 8 totals | 1,076 | 274 | 25% | 1,028 | 267 | 26% | +1 |

Source. AISD 2008 and 2009 TAKS files and DPE summer school files

SCALE SCORE GAIN ANALYSIS

Although the goal was for students to pass TAKS at the end of the summer session, it is important to know how many of the students made gains during this final attempt to pass TAKS.

To find out if growth occurred during the summer program, an examination was conducted of July 2009 TAKS reading scale scores for SSI students who had a previously scored TAKS test. The same analysis was completed for SSI students on TAKS math. The TAKS passing scale score is 2100.

Although only 28% of all SSI students in grade 3, 5, and 8 who attended summer school passed the June/July 2009 TAKS tests, 68% of these students made gains on their TAKS scale score, compared with their prior scale score. Table 6 shows the numbers and percentages of students making scale score gains from the previously scored TAKS document during summer school.

Table 6. Scale Score Gains for SSI Students Who Took June/July 2009 TAKS

| TAKS grade and subject | # of students making gains | % of students making gains |
|------------------------|----------------------------|----------------------------|
| Grade 3 reading | 320 | 79% |
| Grade 5 reading | 407 | 65% |
| Grade 8 reading | 128 | 63% |
| Grade 5 math | 413 | 68% |
| Grade 8 math | 448 | 65% |
| Total | 1,716 | 68% |

Source. AISD 2009 TAKS files

SUMMARY

Reading and math interventions funded by ARI, AMI, and other sources have provided an important resource to K–8 students who were at risk of failing TAKS reading and/or TAKS math. Evidence of impact of intervention on achievement is seen in the following outcomes:

- Seventy-five percent of all reading intervention students passed TAKS reading and 65% of all math intervention students passed TAKS math (compared with 72% and 60%, respectively, in 2007-2008).
- TAKS passing percentages for students in SSI reading grades and subjects were higher (78%) than in non-SSI grades (64%). SSI students had three opportunities to pass TAKS tests, and intervention was provided after each administration of the tests.
- TAKS passing percentages for intervention students have increased in each grade in the past two years, with the exception of reading in grades 3 and 4.
- Sixty-eight percent of 2009 SSI summer school students made scale score gains compared with their prior scale score.

The need for accelerated instruction in reading and math is shown in the following facts:

- Thirty-six percent (n = 8,647) of the AISD K–8 students who participated in reading or math interventions in 2008–2009 participated in both.
- Twenty-four percent (n = 636) of students in grades 5 through 8 who did not pass 2009 TAKS reading also did not pass in the two previous years.

- Thirty-one percent (n = 1,275) of students in grades 5 through 8 who did not pass 2009 TAKS math also did not pass in the two previous years.

FISCAL CONSIDERATION

The 2008–2009 ARI/AMI entitlement of \$2,739,951 for the K–8 reading and math intervention program was supplemented by funds from other grants or programs (e.g., Reading First, OEYP, 21st Century, Title I, Prime Time, and AFL). The ARI and AMI funding sources will be reduced in 2009–2010 to 35% of the previous year’s allocation; funding will be eliminated in 2010–2011. There is a multi-year challenge for accelerating learning due to the fact that from one-fourth (reading) to one-third (math) of students in grades 5 through 8 who did not pass 2009 TAKS also did not pass in 2007 or in 2008.

RECOMMENDATIONS

The need for reading and math interventions is great among AISD students. In 2008–2009, 24% of all K–8 students were eligible for reading interventions and 31% of students in grades 2 through 8 were eligible for math interventions. In anticipation of reduced ARI/AMI funding in 2009–2010 and the elimination of funding in 2010–2011, the following recommendations are offered to district decision makers for consideration.

- Continue to provide intervention to students at risk of failing TAKS reading and TAKS math even though the ARI and AMI funding will be limited in 2009–2010. This will require collaboration between state and federal grant personnel, curriculum managers, and school administrators.
- Provide more intervention opportunities during the school day to reach more students, without compromising instruction in other core content areas.
- Provide teacher training to expand knowledge and to increase the effective use of classroom-based reading and math intervention strategies.
- Focus more resources on early (K–2) interventions. Early intervention can reduce the amount of intervention that is required at a later date.
- Although grade 3 no longer will be subject to SSI promotion requirements, AISD still will need to focus on interventions for grade 3 students who are at risk of reading difficulties. (The 81st Texas Legislature House Bill 3 [2009] removed the SSI grade 3 promotion requirement beginning with the 2009–2010 school year. SSI promotion requirements will affect students in grades 5 and 8 only.)
- Evaluate district school-year and summer school intervention materials and strategies to determine what works best.
- Build on the successes of the ARI/AMI intervention model to ensure that all students receive the instruction and support they need to be academically successful in reading and math.

REFERENCES

Austin Independent School District. (2005). *Key elements of the education plan: Three-tier intervention program*. Austin, TX: Austin Independent School District, Division of Curriculum.

Curry, J. (2008). *AISD K–8 accelerated reading and mathematics instruction evaluation, 2007–2008* (Publication 07.74). Austin, TX: Austin Independent School District, Department of Program Evaluation.

Curry, J. (2007). *AISD K–7 accelerated reading and mathematics instruction evaluation, 2006–2007* (Publication 06.45). Austin, TX: Austin Independent School District, Department of Program Evaluation.

Curry, J. (2006). *AISD K–6 accelerated reading and mathematics instruction evaluation, 2005–2006* (Publication 05.13). Austin, TX: Austin Independent School District, Department of Program Evaluation.

House Bill 3 (2009) 81st Legislature, Austin, TX. Retrieved August 18, 2009, from <http://www.legis.state.tx.us/tlodocs/81R/billtext/pdf/HB00003F.pdf>

Senate Bill 4. (1999). 76th Legislature, Austin, TX. Retrieved October 28, 2008, from <http://www.legis.state.tx.us/tlodocs/76R/billtext/html/SB00004F.htm>

AUSTIN INDEPENDENT SCHOOL DISTRICT

SUPERINTENDENT OF SCHOOLS

Meria J. Carstarphen, Ed.D.

OFFICE OF ACCOUNTABILITY

Anne Ware, Ph.D.

DEPARTMENT OF PROGRAM EVALUATION

Holly Williams, Ph.D.

Martha Doolittle, Ph.D.

AUTHOR

Janice Curry



BOARD OF TRUSTEES

Mark Williams, President

Vincent Torres, M.S., Vice President

Lori Moya, Secretary

Cheryl Bradley

Annette LoVoi, M.A.

Christine Brister

Robert Schneider

Karen Dulaney Smith

Sam Guzman

Publication Number 08.63

October 2009