# AISD K-5 Accelerated Reading and Mathematics Instruction Evaluation, 2004-2005


Austin Independent School District
Department of Program Evaluation

December 2005

# EXECUTIVE SUMMARY

The 78th Texas Legislature appropriated funding for school districts to provide accelerated reading and mathematics instruction for kindergarten through grade 5 (K-5) students during 2004-2005. This funding supported the continuation of the 1999 Senate Bill 4 from the 76th Texas Legislature, which implemented the *Student Success Initiative* (SSI). The SSI grade advancement requirements apply to the grade 3 reading test and the grade 5 reading and mathematics tests. Each district determines if the TAKS (Texas Assessment of Knowledge and Skills) test is appropriate for SSI students. For special education students for whom TAKS is not an appropriate measure, the SDAA II (State-Developed Alternative Assessment II) can substitute. The SSI requirements will be phased in for the grade 8 reading and mathematics tests beginning in 2007-2008. The goal of SSI, as stated by the Texas Education Agency (TEA) Student Assessment Division, is "to ensure that all students receive the instruction and support they need to be academically successful in reading and mathematics."

In 2004-2005, the *Accelerated Reading Instruction* (ARI) and the *Accelerated Mathematics Instruction* (AMI) entitlement for Austin Independent School District (AISD) was $1,667,724 (an increase from $1,492,989 in 2003-2004). Eighty percent of the ARI/AMI funds were used for payroll costs including extra duty pay for teachers, professional support, and summer school teachers and staff. To supplement this entitlement, campuses used other resources (e.g., local funds, and grant funds such as Reading First, Optional Extended Year, 21st Century, Title I, Prime Time, bilingual) to support interventions for students in grades K-5 who were identified as being at risk for reading or mathematics difficulties.

## PROGRAM DESCRIPTION

The 2004-2005 *AISD Student Success Initiative Plan* included the comprehensive core curriculum program for all students in grades K-5. The District SSI Plan prescribes that early intervention to accelerate reading and mathematics learning be provided to elementary students who need additional support. The SSI Plan incorporated a three-tiered approach to intervention: in the classroom (Level 1); after school (Level 2); and summer school for students in targeted grades who did not pass TAKS reading or mathematics (Level 3).

Because of limited funds and the SSI promotion requirements, the District chose to focus ARI resources at grades 3 and 5 and AMI resources at grade 5. Small group instruction (5-8 students) was provided for identified students for 60-90 minutes per class for a total of three hours per week. While most intervention classes met after school, some intervention classes were held before school or on Saturday mornings. Two multi-week school-year sessions were planned (fall 2004 and spring 2005) with a special session for students who did not pass the first administration of TAKS reading or TAKS mathematics. Students who did not pass the second administration of TAKS reading (grades 3 and 5) or TAKS mathematics (grade 5) were provided summer school instruction before the June tests.

**STUDENT DEMOGRAPHICS**

During 2004-2005, 13,143 students participated in AISD grades K-5 reading or mathematics interventions regardless of funding source. According to 2004-2005 AISD student records, demographics for all students in grades K-5 who received reading and/or mathematics interventions funded by any source included the following.

- Eighty-one percent (n = 10,705) were from low-income families.
- Thirty-nine percent (n = 5,178) were of limited English proficiency (LEP).
- Male students (n = 6,958) outnumbered female students (n = 6,185).
- Hispanic students comprised the largest ethnic group (n = 9,275), followed by African American (n = 2,078), Anglo/Other (n = 1,626), and Asian (n = 164).
- Seventy-three percent of accelerated instruction was provided in English.

**INTERVENTION SERVICES**

Of the 13,143 students in grades K-5 who received accelerated instruction outside of the regular classroom, 3,602 students participated in both reading and mathematics interventions for a total of 16,745 intervention services during 2004-2005. An examination of students served only by ARI/AMI grant funds indicated that more than twice as many students were served in 2004-2005 (n = 5,386) than in 2003-2004 (n = 2,383).

Of the 16,745 intervention services funded by any source in 2004-2005, 11,618 (69%) interventions were for students needing accelerated reading and 5,127 (31%) were for students needing accelerated mathematics. The numbers and percentages of reading and mathematics interventions that were provided to students included the following:

- ARI provided reading interventions to 3,110 (18%) students in grades 2-5;
- AMI provided mathematics interventions to 2,276 (14%) students in grades 3-5;
- Other funding sources provided reading interventions to 8,508 (51%) students in K-5; and
- Other funding sources provided mathematics interventions to 2,851 (17%) students in grades K-5.

Of the 23,411 instances where students in grades K-5 were identified as at risk for reading and/or mathematics difficulties, 72% (n= 16,745) were addressed with interventions outside of the classroom. The other 28% (n = 6,666) of those instances were addressed with Level 1 classroom intervention only.

**END-OF-YEAR ASSESSMENT**

Overall, 74% of reading intervention students in grades 3-5 passed TAKS reading and 63% of mathematics intervention students in grades 3-5 passed TAKS mathematics. Of these intervention students, 41% participated in both reading and mathematics interventions. A summary of 2005 TAKS results for intervention students in grades and subjects affected by the SSI promotion requirement follows:

- Of all grade 3 reading intervention students tested (n = 2,486), 86% passed TAKS

reading.

- Of all grade 5 reading intervention students tested (n = 2,003), 73% passed TAKS reading.
- Of all grade 5 mathematics intervention students tested (n = 1,770), 74% passed TAKS mathematics.
- Of the 1,629 students in grades 3-5 who took the third administration of TAKS at summer school, 35% (n = 577) passed (36% reading and 34% mathematics).

In 2005-2006, the *Student Success Initiative* impacts grade 6. In 2005-2006, ARI/AMI funds are being distributed to middle schools for the purpose of providing after-school intervention to these promoted grade 6 students who failed one or both grade 5 TAKS tests. For students in grades K-5 (n = 11,353) who participated in ARI, AMI, or another reading or mathematics intervention during 2004-2005 and who were enrolled in AISD in fall 2005, 96% (n = 10,913) were promoted to the next grade level in 2005-2006. Of the 559 grade 5 students who failed one or more grade 5 2005 TAKS tests and who were promoted to grade 6 at middle school in 2005-2006, 217 students failed reading, 169 students failed mathematics, and 173 failed both tests.

**PROFESSIONAL DEVELOPMENT**

During 2004-2005, 1,687 elementary teachers attended 19,420 hours of training in reading for an average of 12 hours each. The total number of teachers trained in reading for grades K-5 included the following: 456 teachers attended Teacher Reading Academies (TRA); 327 teachers attended training on ARI curriculum resources and teaching strategies; and 904 teachers attended training in reading other than ARI or TRA.

For mathematics professional development during 2004-2005, 781 teachers attended 6,787 hours of training for an average of 9 hours each. The total number of teachers trained in mathematics for grades K-5 included the following: 55 teachers participated in the Teacher Math Academies (TMA); 151 teachers participated in training specific to the AMI intervention program; and 575 teachers attended training in mathematics other than AMI or TMA.

**STRENGTHS OF THE PROGRAM**

There were many benefits from the ARI/AMI intervention program for teachers and students. For example, as the program manager stated, the ARI/AMI entitlement provided a year-round intervention for students struggling in reading or mathematics. Some strengths of the program that were reported by teachers included: small group/individualized instruction, quality curriculum and materials, and strong support from the program manager and instructional specialists.

**SUGGESTED PROGRAM IMPROVEMENTS**

While most intervention teachers agreed that the 2004-2005 ARI/AMI program was beneficial for struggling students, the program manager and teachers had suggestions for

improving future intervention programs. According to the program manager, the District needs to serve all eligible students, which will require additional funding. ARI and AMI teachers suggested more variety in curriculum and materials, and that less paperwork should be required for the grant to allow more instructional time.

**RECOMMENDATIONS**

The need for reading and mathematics interventions is great among AISD elementary students. In 2004-2005, 39% of all K-5 students were identified as needing reading or mathematics intervention. The challenge for the District is to find the resources to provide reading and mathematics interventions for all eligible students in grades K-6 in 2005-2006. Campus staff will need to be creative when planning to maximize the available resources.

Classroom reading and mathematics interventions must be of the highest quality because many of the students needing academic assistance may not have an opportunity to participate in interventions outside of the regular classroom due to limited resources. With the promotion requirements for grade 3 and 5 students, the District should continue to seek new reading and mathematics funding for high-needs campuses and to maximize use of funds from existing grants. The following recommendations to improve the K-6 intervention programs in 2005-2006 are offered to district decision-makers for consideration:

- Require more teacher training to expand knowledge of classroom-based reading and mathematics instruction and intervention strategies and to support intervention programs inside and outside of the classroom. (Classroom instruction is the first line of intervention.)
- Provide funding and support for all students in grades 3-5 needing reading and mathematics interventions to prepare these students for the SSI promotion requirements. (Only 72% of eligible students were served in 2004-2005.)
- Seek additional funding to support prevention efforts in the earlier grades (K-2) that are not a focus for ARI/AMI. (In grades K-2, only 65% of eligible reading and 35% of eligible mathematics students were served.)
- Closely monitor grade 6 reading and mathematics interventions at middle school as the grant is expanded. (Middle school will participate in ARI/AMI in 2005-2006.)
- Follow the progress of grade 5 students who failed one or more TAKS tests in 2004-2005 and who were promoted to grade 6 in 2005-2006. (After failing one or more TAKS tests, 559 students were promoted to grade 6 at middle school in 2005-2006.)
- Provide more instruction time for grade 5 summer school students who need to pass both TAKS reading and TAKS mathematics. (Students who had four hours of instruction daily in the subject to be tested had a higher passing rate on June 2005 TAKS tests than did students who received two hours of instruction daily per subject.)

# TABLE OF CONTENTS

## LIST OF FIGURES

## LIST OF TABLES

## INTRODUCTION

The 78th Texas Legislature appropriated funding for school districts to provide accelerated reading and mathematics instruction for kindergarten through grade 5 (K-5) students during 2004-2005. This funding supported the continuation of the 1999 Senate Bill 4 from the 76th Texas Legislature, which implemented the *Student Success Initiative* (SSI). The SSI grade advancement requirements apply to the grade 3 reading test and the grade 5 reading and mathematics tests (http://www.tea.state.tx.us/student.assessment/resources/ssi/index.html). Each district determines if the TAKS (Texas Assessment of Knowledge and Skills) test is appropriate for SSI students. For special education students for whom TAKS is not an appropriate measure, the SDAA II (State-Developed Alternative Assessment II) can substitute. The SSI requirements will be phased in for the grade 8 reading and mathematics tests beginning in 2007-2008. The goal of SSI, as stated by the Texas Education Agency (TEA) Student Assessment Division, is "to ensure that all students receive the instruction and support they need to be academically successful in reading and mathematics" (http://www.tea.state.tx.us/student.assessment/resources/ssi/index.html).

In 1999-2000, the state *Accelerated Reading Instruction* (ARI) funding was targeted to kindergarten. In each of the following years, another grade level was eligible for support from funds with students in grades K-5 being served in 2004-2005. In addition, mathematics intervention was added in 2003-2004 through the *Accelerated Mathematics Instruction* (AMI) entitlement. The purpose of the 2004-2005 funding, as stated by the TEA Division of Curriculum (2003), was as follows:

- *Accelerated Reading Instruction* funding is to be used to provide intensive, targeted intervention programs for students in grades K-5 who have been identified as at-risk for reading difficulties, including dyslexia.
- *Accelerated Math Instruction* funding is to be used to provide intensive, targeted intervention programs for students in grades K-5 who have been identified as unlikely to achieve the TAKS mathematics passing standards by the end of grade 5.

The federal *No Child Left Behind* (NCLB) Act required states to implement statewide accountability systems for all public schools and students (2002). According to NCLB, "These systems must be based on challenging State standards in reading and mathematics, annual testing for all students in grades 3-8, and annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years." The ARI/AMI grant supports this goal.

This report summarizes the intensive effort of the Austin Independent School District (AISD) to fulfill the state and federal mandates, by offering reading and mathematics interventions to students in grades K-5 identified as being at risk for reading or mathematics difficulties. Many of the data presented here have been reported to TEA to meet the evaluation requirement of the ARI/AMI entitlement.

## OVERVIEW OF 2004-2005 ACCELERATED INSTRUCTION FOR GRADES K-5

The 2004-2005 *AISD Student Success Initiative Plan* included the comprehensive core curriculum program for kindergarten through grade 5, an after-school accelerated instruction program, and summer school. The SSI Plan provided early intervention to accelerate reading and mathematics learning for elementary students who needed additional support. The structure of the local SSI Plan presented a three-tiered approach to intervention. Classroom teachers were the initial providers of reading and mathematics interventions (Level 1 intervention). School-day support also was available through the campus literacy specialist. When students needed additional support, after-school intervention was provided (Level 2 intervention). For grade 3 students who did not pass 2005 TAKS reading and grade 5 students who did not pass 2005 TAKS reading and/or TAKS mathematics tests, summer school was provided (Level 3 intervention).

Because of limited funds and the SSI promotion requirements, the District chose to focus ARI and AMI resources on reading intervention at grades 3 and 5 and on mathematics intervention at grade 5. Small group instruction, for an average of five to eight students, was provided for identified students. Students met with intervention teachers for 60-90 minutes per class for a total of three hours per week. While most classes met after school, a few schools held sessions before school or conducted Saturday morning classes. Three multi-week school-year sessions were planned: fall 2004, spring 2005, and a special session for students who did not pass the first administration of TAKS reading or TAKS mathematics tests. The students who did not pass the second administration of grade 3 or grade 5 TAKS reading or grade 5 TAKS mathematics were provided summer school instruction before the final administration of the tests in June.

Optional Extended Year Program (OEYP) funds supported the elementary SSI plan by providing accelerated instruction in reading and mathematics for grade 3 through 5 students. (See the Optional Extended Year Program Report, 2004-2005 from the Department of Program Evaluation.) Other funding sources, including local, Reading First, 21st Century, Prime Time, Title I, and bilingual, provided support for accelerated instruction in reading and mathematics for additional students needing intervention. Much of the data in this evaluation are reported in aggregate across funding sources because the ARI/AMI entitlement funded only one-third of the interventions provided to students in grades K-5 at 74 AISD elementary schools. (See Appendix A for the detailed 2004-2005 *AISD Student Success Initiative Plan*.)

### BUDGET

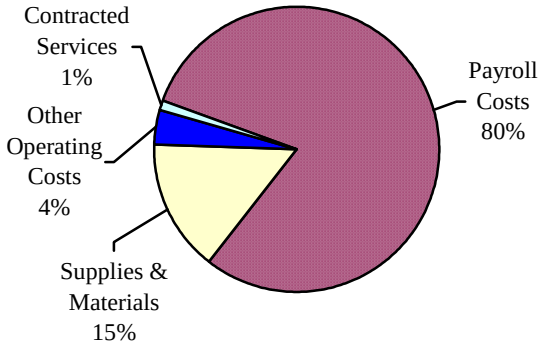
The 2004-2005 AISD allocation for accelerated reading and mathematics instruction funded by the state ARI/AMI entitlement grant was $1,667,724 (an increase from $1,492,989 in 2003-2004). The ARI state entitlement was based on $906 (a decrease from $1,007 in 2003-2004) for each grade 3 and grade 5 student who failed to meet the standard on the first

administration of the 2004 TAKS reading. The AMI entitlement was also based on $906 for each grade 5 student who failed to meet the passing standard on the 2004 TAKS mathematics assessment. While the total 2004-2005 allocation increased by 12% from 2003-2004, the numbers of students eligible for intervention also increased due to the addition of grade 5 reading and mathematics promotion requirements.

The actual ARI/AMI expenditure was $1,636,025. The majority of the funds (64% or $1,041,920) was used for reading intervention to support the goal that all grade 3 and 5 students would pass TAKS reading. The mathematics funds spent (36% or $594,105) supported the mathematics initiative to have all grade 5 students pass TAKS mathematics in 2004-2005. The average cost per student served by ARI/AMI was $304, with an average cost per student of $335 for reading and $261 for mathematics. The average cost per student in 2004-2005 was less than half that in 2003-2004 ($626).

Eighty percent ($1,301,875) of the 2004-2005 ARI/AMI funds was used for payroll costs, including extra duty pay for teachers, professional support, and summer school teachers and staff. The second largest expenditure ($204,924) was for reading and mathematics supplies and materials. Figure 1 shows the percentages of ARI/AMI expenditures by category in 2004-2005. (Expenditure data for the additional funding sources were not available.)

Figure 1: Percentages of AISD ARI/AMI Expenditures, 2004-2005

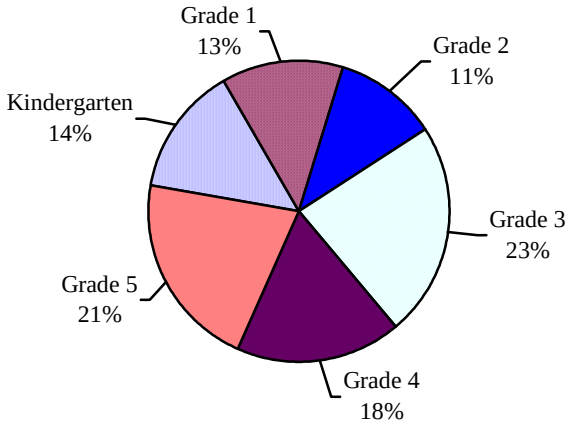



*Source: 2004-2005 AISD Finance Department Records, as of August 31, 2005*

**STUDENT DEMOGRAPHICS**

During 2004-2005, 13,143 students participated in AISD grades K-5 reading or mathematics interventions regardless of funding source. This unduplicated count represents a 17% increase in the number of students served from 2003-2004 (n = 11,249). Many of the 2004-2005 students participated in both reading and mathematics interventions, and those interventions will be discussed later in the report in terms of a duplicated count. The largest percentages of students served by elementary reading and mathematics interventions funded by any source were at grade 3 (23%) and grade 5 (21%). Figure 2 shows the grade distribution by grade level for reading and mathematics interventions in grades K-5.

Figure 2: Percentages of AISD Students Receiving Reading or Mathematics Interventions (N = 13,143) by Grade, 2004-2005

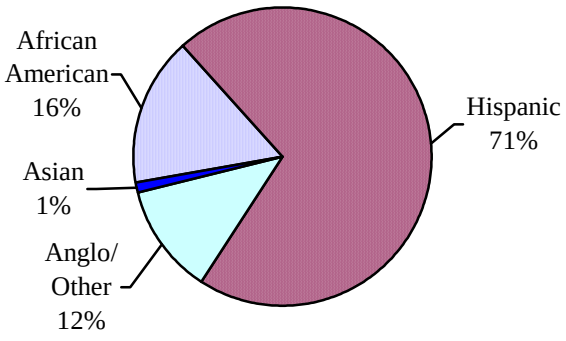



*Source: AISD Program Evaluation 2004-2005 ARI, AMI, and Other Intervention File*

According to the 2004-2005 AISD student records, demographics for all students in grades K-5 who received reading and/or mathematics intervention funded by any source included the following.

- Eighty-one percent (n = 10,705) were from low-income families.
- Thirty-nine percent (n = 5,178) were of limited English proficiency (LEP).
- Male students (n = 6,958) outnumbered female students (n = 6,185).
- As shown in Figure 3, Hispanic students comprised the largest ethnic group (n = 9,275), followed by African American (n = 2,078), Anglo/Other (n = 1,626), and Asian (n = 164).

Figure 3: Ethnicity of AISD Grades K-5 Reading and Mathematics Intervention Students (N = 13,143), 2004-2005




*Source: AISD Student Records and Program Evaluation 2004-2005 ARI, AMI, and Other Intervention File*

## INTERVENTION SERVICES

Of the 13,143 students in grades K-5 who received accelerated instruction outside of the regular classroom, 3,602 students participated in both reading and mathematics interventions for a total of 16,745 intervention services during 2004-2005. The ARI/AMI grant provided for more than twice the number of interventions in 2004-2005 (N = 5,386) as in 2003-2004 (N = 2,383).

Of the total number of interventions provided in 2004-2005, 69% (n = 11,618) were for reading and 31% (n = 5,127) were for mathematics.

Of the 16,745 intervention services funded by any source in 2004-2005, 11,618 (69%) interventions were for accelerating reading and 5,127 (31%) were for accelerating mathematics learning. The numbers and percentages of reading and mathematics interventions funded by source that were provided to students included the following:

- ARI provided reading interventions to 3,110 (18%) students in grades 2-5;
- AMI provided mathematics interventions to 2,276 (14%) students in grades 3-5;
- Other funding sources provided reading interventions to 8,508 (51%) students in K-5; and
- Other funding sources provided mathematics interventions to 2,851 (17%) students in grades K-5.

Of the 23,411 instances where students in grades K-5 were identified as at risk for reading and/or mathematics difficulties, 72% (n= 16,745) were addressed with interventions outside of the classroom. The other 28% (n = 6,666) of those instances were addressed with Level 1 classroom intervention only.

To prepare for the SSI promotion requirement, 4,160 grade 5 students participated in reading or mathematics intervention and 2,822 grade 3 students participated in reading intervention in 2004-2005. Table 1 presents a duplicated count of students among the total number of interventions provided, as students can participate in both reading and mathematics interventions. Students are counted first in ARI or AMI. Counts for the other reading intervention participants did not include those counted for ARI intervention, and the counts for other mathematics intervention participants did not include those counted for AMI intervention.

Table 1: AISD Elementary Accelerated Reading and Mathematics Intervention Participants by Grade Level, 2004-2005

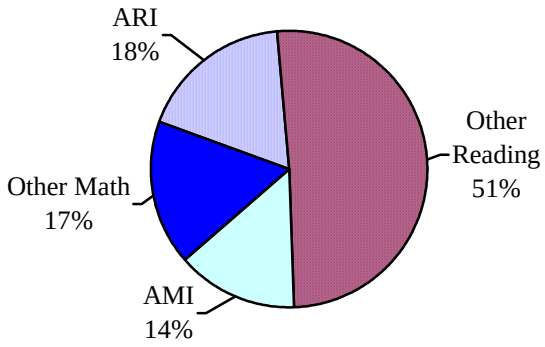
| Grade | ARI | AMI | Other Reading | Other Math | Total # of Interventions Provided |
|---|---|---|---|---|---|
| **K** | 0 | 0 | 1,777 | 108 | 1,885 |
| **1** | 0 | 0 | 1,651 | 104 | 1,755 |
| **2** | 3 | 0 | 1,406 | 177 | 1,586 |
| **3** | 1,504 | 405 | 1,318 | 892 | 4,119 |
| **4** | 297 | 545 | 1,456 | 942 | 3,240 |
| **5** | 1,306 | 1,326 | 900 | 628 | 4,160 |
| **Total** | **3,110** | **2,276** | **8,508** | **2,851** | **16,745** |

*Source: AISD Program Evaluation ARI/AMI/Other Intervention Participation Records, 2004-2005*
Note: Numbers are unduplicated within subject, but a student can be counted in both reading and math.

**READING STUDENTS IDENTIFIED AND SERVED**

The ARI entitlement funded 18% (n = 3,110) of the all grades K-5 reading interventions and AMI funded 14% (n = 2,276) of mathematics interventions. Campus staff used other local, state, and federal funding sources to provide reading and mathematics interventions to 11,359 students in grades K-5 (68% of all interventions). Thus, the majority (51%) of students received reading intervention funded by a source other than ARI. Figure 4 shows the percentages of interventions provided by each funding source.

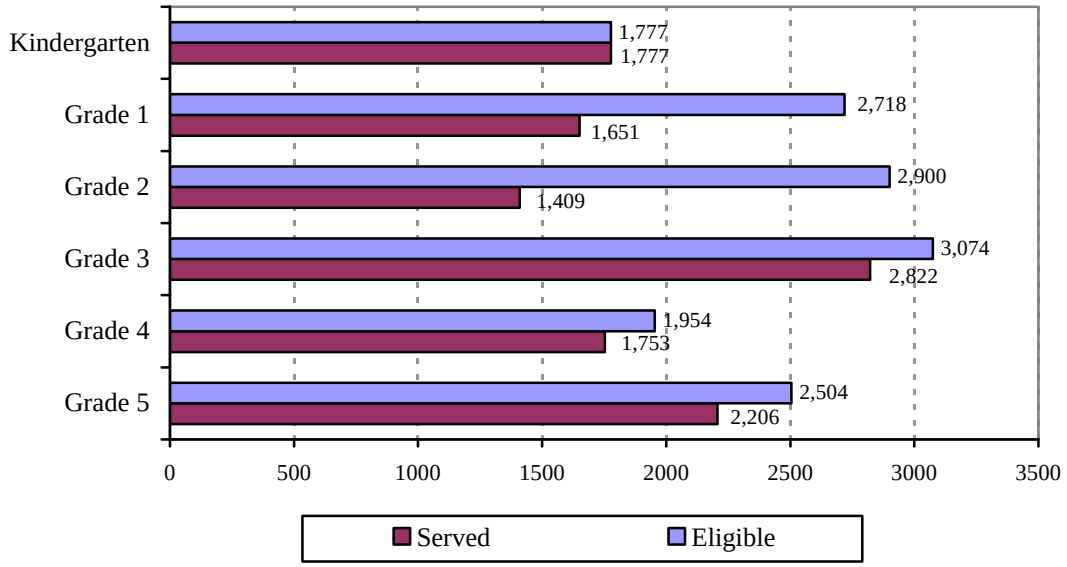
Figure 4: Percentages of Grades K-5 Interventions (N = 16,745)
Provided by Type of Funding, 2004-2005




*Source: AISD Program Evaluation ARI, AMI, and Other Reading and Math Intervention File, 2004-2005*

According to AISD fall (grades 1-5) and winter (kindergarten) Benchmark test data and 2004 TAKS reading scores, 14,927 (39% of all) students in grades K-5 were in need of reading intervention in 2004-2005. Of these students, 11,618 (78%) received reading intervention outside of the regular classroom (90% of eligible students in grades 3-5 and 65% of eligible students in grades K-2 were served). The largest numbers of students identified (n = 3,074) and served (n = 2,822) in reading were at grade 3. After intensive reading intervention in grade 3 during the 2003-2004 school year, the number of 2004-2005 grade 4 students eligible for reading intervention was lower than any other grade except kindergarten (Figure 5).

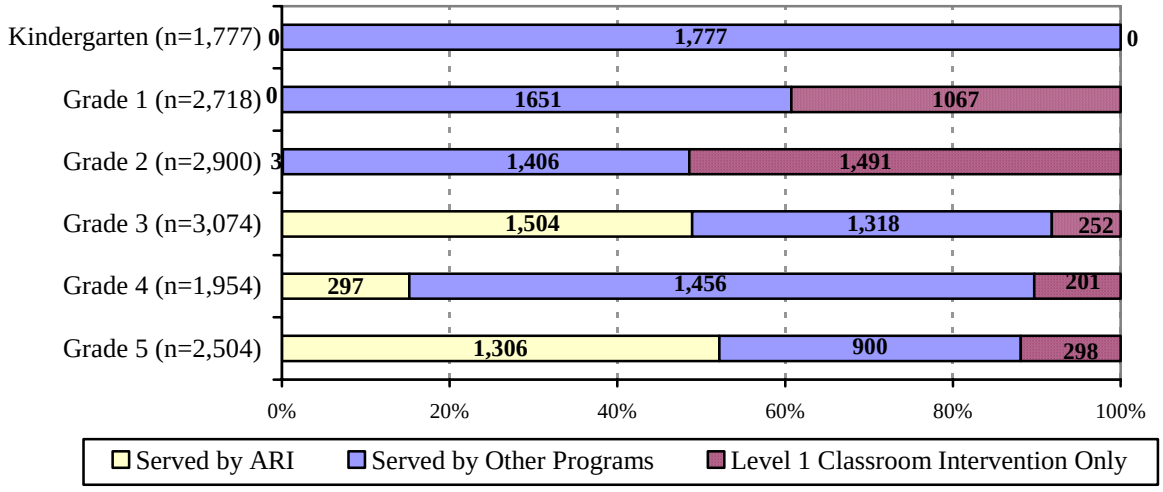
Figure 5: Numbers of AISD Grades K-5 Students Identified for Reading Intervention and Numbers Served, 2004-2005




*Source: AISD Benchmark Records and Program Evaluation ARI/Other Data, 2004-2005*

Of the 14,927 students in grades K-5 identified for reading intervention, 3,110 (21%) students received intervention provided by the ARI grant and 8,508 (57%) students received reading intervention funded by another source. The remaining 22% (n = 3,309) of students in grades K-5 received Level 1 classroom reading intervention only. The largest percentage of students (51%) who received only Level 1 classroom intervention was in grade 2. Figure 6 shows the numbers and percentages of students in grades K-5 who were identified for reading intervention and the numbers and percentages served by ARI, other interventions, and Level 1 classroom intervention.

Figure 6: Numbers and Percentages of AISD Grades K-5 Students Identified as Eligible and Served, by Type of Reading Intervention, 2004-2005

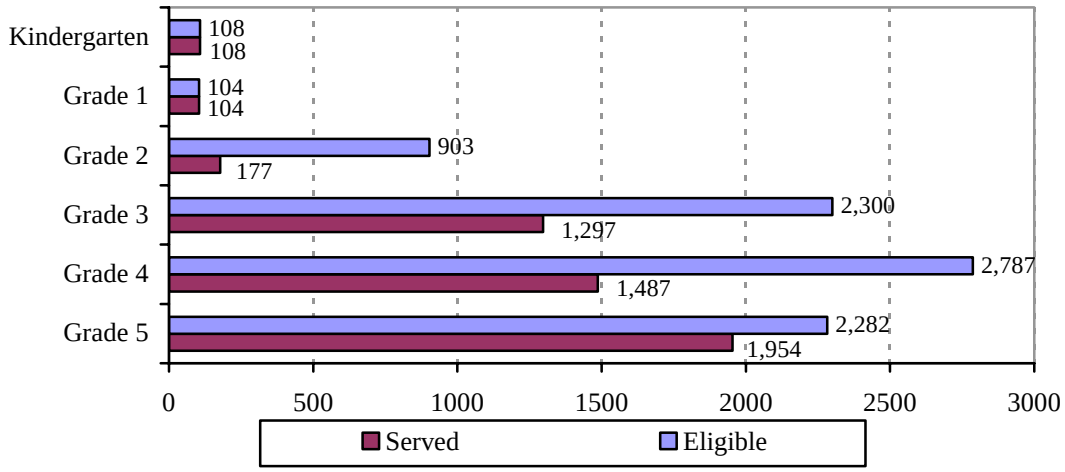



*Source: AISD K-5 Benchmark Data, TAKS Data, and DPE Reading Intervention Records, 2004-2005*

**MATHEMATICS STUDENTS IDENTIFIED AND SERVED**

According to AISD fall 2004 Benchmark test data and 2004 TAKS data, 8,484 students in grades 2-5 (39% of all) were identified as needing mathematics intervention in 2004-2005. Sixty percent (n = 5,127) of students in grades K-5 identified for mathematics intervention were served (35% of eligible K-2 students and 64% of eligible students in grades 3-5). At kindergarten and grade 1 (n = 212), students were identified for mathematics intervention by the classroom teachers because there was no diagnostic test for these grades. Only 20% of grade 2 students identified as needing mathematics intervention were served. Figure 7 shows the numbers of students in grades K-5 identified and served in mathematics interventions during 2004-2005.

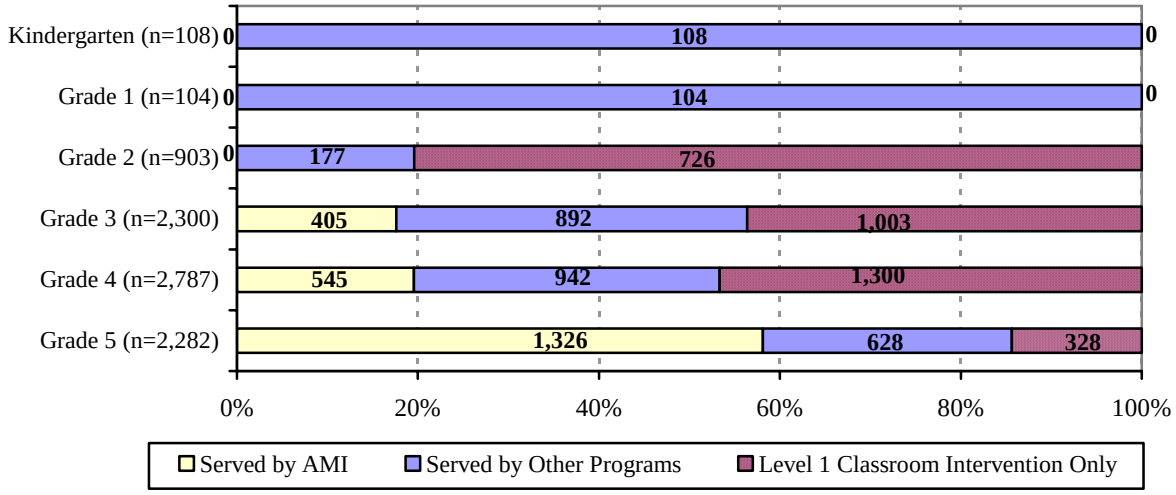
Figure 7: Numbers of AISD Grades K-5 Students Identified as Eligible and Served in Mathematics Interventions, 2004-2005




*Source: AISD K-5 Student Assessment Records and Program Evaluation AMI Records, 2004-2005*

Of the 8,484 students identified as eligible for mathematics intervention, 27% (n = 2,276) of students participated in the AMI program and 34% (n = 2,851) participated in mathematics interventions funded by other sources. The remaining 39% (n = 3,357) of students received Level 1 classroom intervention only. Figure 8 shows the numbers and percentages of students in grades K-5 who were identified as eligible by the type of mathematics intervention they received.

Figure 8: Numbers and Percentages of AISD Grades K-5 Students Identified as Eligible and Served by Type of Mathematics Intervention, 2004-2005

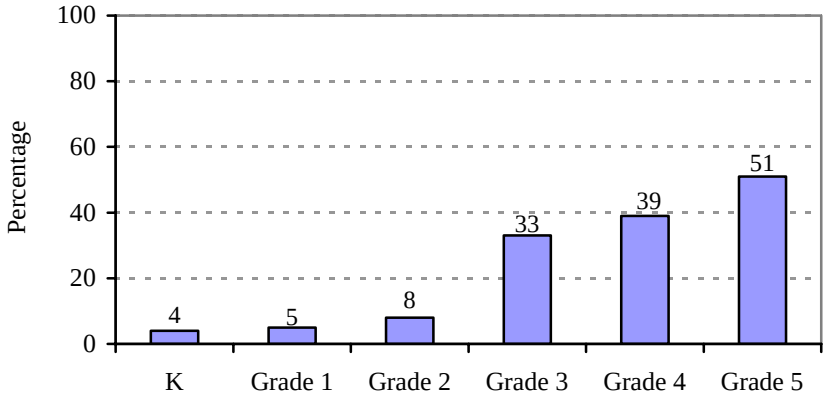



*Source: AISD Grade K-5 Benchmark Data, TAKS Data, and Program Evaluation Mathematics Intervention File, 2004-2005*

## MULTIPLE INTERVENTION STUDENTS

In anticipation of the 2005 SSI promotion requirement for grade 5 students, the District and campuses focused resources on reading intervention in grades 3 and 5 and on mathematics intervention in grade 5 in 2004-2005. Of students in grades K-5 who participated in accelerated instruction (n = 13,143), 27% (n = 3,602) participated in both reading and mathematics interventions in 2004-2005. Of the intervention students in grades 3-5, 41% participated in both reading and mathematics interventions. The percentage of intervention students in grades K-5 who participated in both reading and mathematics interventions increased with each grade, ranging from 4% (n = 76) at kindergarten to 51% (n = 1,405) at grade 5 (Figure 9).

Figure 9: Percentages of AISD Grades K-5 Students (N = 3,602) Who Participated in Both Reading and Mathematics Interventions, 2004-2005




*Source: AISD Program Evaluation ARI, AMI, and Other Reading and Math Intervention File, 2004-2005*

### LANGUAGE OF INSTRUCTION

Reading and mathematics interventions were offered in both English and Spanish during 2004-2005. Seventy-three percent of all grades K-5 reading and mathematics interventions were provided in English in 2004-2005. A greater percentage of students received Spanish intervention instruction in reading (30%) than in mathematics (15%). At kindergarten, 80% of intervention students were Spanish speakers because these students participated in the 2005 LEP summer school program for pre-K and kindergarten students. However, at grade 5 only 7% of students received intervention instruction in Spanish. Table 2 shows the numbers and percentages of students who participated in interventions by grade level and by language of instruction.

Table 2: Numbers and Percentages of AISD Reading and Mathematics Intervention Students by Grade Level and Language of Instruction, 2004-2005

| Intervention by Language of Instruction | Grade Level K | 1 | 2 | 3 | 4 | 5 | Total # | Total % |
|---|---|---|---|---|---|---|---|---|
| **Reading** | | | | | | | | |
| **English** | 350 | 1,150 | 1,023 | 2,034 | 1,434 | 2,024 | 8,015 | **69%** |
| **Spanish** | 1,427 | 496 | 385 | 734 | 266 | 153 | 3,461 | **30%** |
| **Spanish/English** | 0 | 5 | 1 | 54 | 53 | 29 | 142 | **1%** |
| **Total** | **1,777** | **1,651** | **1,409** | **2,822** | **1,753** | **2,206** | **11,618** | **100%** |
| **Mathematics** | | | | | | | | |
| **English** | 89 | 81 | 136 | 899 | 1,256 | 1,814 | 4,275 | **83%** |
| **Spanish** | 19 | 20 | 41 | 363 | 206 | 115 | 764 | **15%** |
| **Spanish/English** | 0 | 3 | 0 | 35 | 25 | 25 | 88 | **2%** |
| **Total** | **108** | **104** | **177** | **1,297** | **1,487** | **1,954** | **5,127** | **100%** |

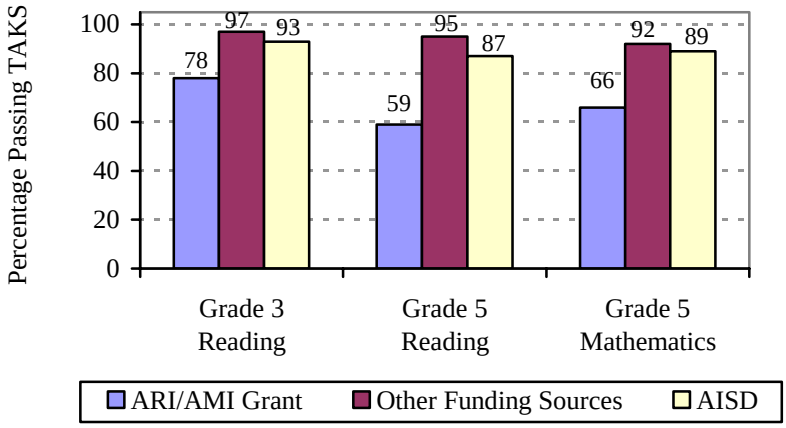
*Source: AISD Program Evaluation ARI/AMI/Other Intervention File, 2004-2005*

## END-OF-YEAR ASSESSMENT DATA

### TAKS AT GRADES 3-5

Students taking grade 3 TAKS reading, grade 5 TAKS reading, and grade 5 TAKS mathematics tests had three opportunities to pass: February 23, April 20, and June 29 for reading, and April 5, May 17, and June 28 for mathematics. An analysis of the TAKS results for students affected by SSI promotion requirement (grade 3 and grade 5) indicated that a lesser percentage of ARI and AMI students passed TAKS reading or TAKS mathematics than did students receiving intervention funded by another source. This may be a result of the ARI and AMI programs working with students selected because of their previous identification for lowest reading and mathematics achievement. Figure 10 shows the cumulative TAKS reading and TAKS mathematics results for students in grades 3 and 5 by ARI/AMI grant, other funding sources, and AISD.

Figure 10: Cumulative 2005 TAKS Reading (Grade 3 and 5) and TAKS Mathematics (Grade 5) Passing Percentages for Intervention Students by Funding Source and for AISD




*Source: AISD Program Evaluation and Systemwide Testing Data Files, 2004-2005*

To determine the impact of all reading and mathematics interventions at the elementary campuses, the 2005 TAKS reading and TAKS mathematics passing rates for students in grades 3-5 were examined. A summary of that information follows:

- Of all reading intervention students in grades 3-5 who were tested (n = 6,044), 74% passed 2005 TAKS reading.
- Of all mathematics intervention students in grades 3-5 who were tested (n = 4,281), 63% passed 2005 TAKS mathematics.

(See Appendix B for a complete count of reading and mathematics intervention students in grades 3-5 who passed TAKS, by type of intervention.) Table 3 show the numbers and percentages of intervention students in grades 3-5 who took and passed 2005 TAKS reading and mathematics.

Table 3: Numbers and Percentages of Reading and Mathematics Intervention Students in Grades 3-5 Who Passed 2005 TAKS

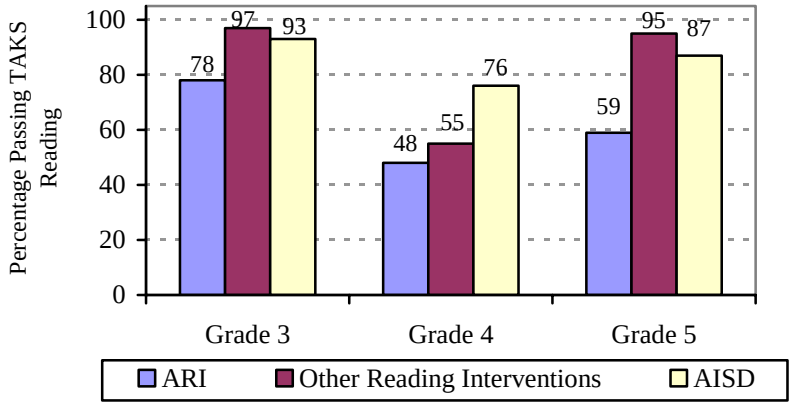
| Grade | # Tested Reading | # Passed Reading | % Passed Reading | # Tested Math | # Passed Math | % Passed Math |
|---|---|---|---|---|---|---|
| **3** | 2,486 | 2,148 | 86% | 1,166 | 644 | 55% |
| **4** | 1,555 | 843 | 54% | 1,345 | 745 | 55% |
| **5** | 2,003 | 1,456 | 73% | 1,770 | 1,309 | 74% |
| **Total** | 6,044 | 4,447 | 74% | 4,281 | 2,698 | 63% |

*Source: AISD Program Evaluation and Systemwide Testing Data Files, 2004-2005*

The 2005 grade 4 TAKS reading and mathematics results are cause for concern. Of all grade 4 reading intervention students tested (n = 1,555), 54% passed 2005 TAKS reading. The district passing rate was 76%. Of all grade 4 mathematics intervention students (n = 1,345), 55% passed 2005 TAKS mathematics. The district passing rate was 76%. This means that 712 of the

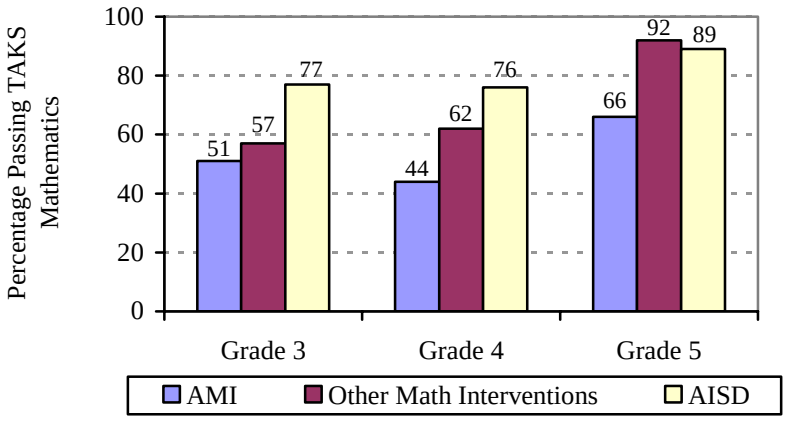
grade 4 reading intervention students and 601 mathematics intervention students failed to pass the corresponding TAKS test in 2005. In fact, 605 intervention students failed to meet the passing standard for both TAKS reading and TAKS mathematics in 2005 (114 in grade 3; 249 in grade 4; and 242 in grade 5). In spring 2006, the grade 4 students from 2004-2005 will be in grade 5 and will be required to pass both grade 5 TAKS reading and TAKS mathematics to be promoted to grade 6. Figures 11 and 12 show the percentages of intervention students in grades 3-5 (by type of intervention) who passed TAKS reading and mathematics in 2005.

Figure 11: Percentages of AISD Reading Intervention Students in Grades 3-5 and the District Who Passed 2005 TAKS Reading (English and Spanish)




*Source: AISD Program Evaluation and 2005 Grades 3-5 TAKS Reading File*

Figure 12: Percentages of AISD Mathematics Intervention Students in Grades 3-5 and the District Who Passed 2005 TAKS Mathematics (English and Spanish)




*Source: AISD Program Evaluation and 2005 Grades 3-5 TAKS Mathematics File*

### KINDERGARTEN TO GRADE 2 GRADE LEVEL ASSESSMENTS

#### Reading

In 2004-2005, 7,395 (36%) of all AISD students in grades K-2 were identified for reading intervention. Sixty-five percent (n = 4,837) of those identified for reading intervention were served. Ninety-nine percent of K-2 students who received reading intervention were served by a source other than ARI because ARI resources were focused at grades 3 and 5.

Reading on grade level for intervention students in kindergarten through grade 2 was determined by using one or more of the following state-approved tests: TPRI, Tejas LEE, and DRA. End of year assessment information was not available for all students in grades K-2 who received reading intervention. Of the students in grades K-2 who received reading intervention and had end of year assessments, 59% (n = 2,831) were on grade level in reading by the end of the year.

#### Mathematics

AISD developed Benchmark mathematics tests for students in grades 2-12 to aid in diagnosing student mathematics difficulties based on the TEKS. Of the 903 grade 2 students identified on the Benchmark test as being at risk for mathematics difficulties, 177 students received mathematics intervention funded by a source other than AMI during 2004-2005. No AMI funds were used for grades K-2 mathematics interventions. No summary evaluation data for students in grades K-1 are available because there are no district or state mathematics assessments for these grades.

## SUMMER SCHOOL 2005

In 2005, ARI and AMI funded summer school interventions for students who had not passed grade 3 TAKS reading, grade 5 TAKS reading, or grade 5 TAKS mathematics tests as of the end of May 2005. Other programs were offered at some of the summer school sites, including a grade 4 science program and the *Systemic Accelerated Reading Intervention* (SARI) program for special education students in grades 1-5 who were struggling readers.

### PROGRAM DESCRIPTION

In June 2005, 1,383 students (409 in grade 3 and 974 in grade 5) from 70 AISD elementary campuses attended the eight district elementary summer school sites: Brown, Dawson, Linder, Norman, Oak Springs, Ridgetop, Williams, and Wooldridge. Five students from outside the District also attended. While most of these summer school students had received prior intervention, 83 (38 grade 3 and 45 grade 5) students had not attended any previously documented intervention during 2004-2005. Of the 45 grade 5 students who had no

previously documented school-year intervention, 17 needed to pass both TAKS reading and TAKS mathematics at the end of summer school.

Prior to the start of summer school, 107 teachers (43 in grade 3 and 64 in grade 5) participated in a day and a half of professional development specific to summer school curriculum. This represented 49% (1,284 hours) of the total professional development hours for the ARI/AMI program reported earlier in this document. Program managers hired experienced teachers to work with students for four hours each day of the 18-day program. According to summer school principals, most teachers had participated during the school year in either the ARI or AMI intervention program and were familiar with the curriculum. Grade 3 teachers concentrated on improving students' reading skills, while grade 5 teachers taught either reading or mathematics.

### ATTENDANCE

The summer school program lasted 18 days for reading students and 17 days for mathematics students. The difference of one day of instruction was the result of the testing schedule; TAKS mathematics was administered on June 28, followed by the TAKS reading on June 29.

The average number of students attending daily for ARI/AMI summer school was 1,256 students, with a range of 1,060 on the last day (reading students only) to 1,320 on the 12$^{th}$ and 14$^{th}$ days. Average number of attendance days per student was: 15.9 (of 18 possible) for grade 3 reading students, 16.1 (of 18) for grade 5 reading students, and 15.0 (of 17) for grade 5 mathematics students.

### TAKS RESULTS

The third opportunity for grade 3 students to pass TAKS reading and for grade 5 students to pass TAKS reading and/or TAKS mathematics came at the end of summer school. A total of 1,629 TAKS tests were taken (382 grade 3 reading, 680 grade 5 reading, and 567 grade 5 mathematics) during June testing. Overall, 35% of the students who took the final administration of the tests passed. TAKS results for grade 3 reading and for grade 5 reading and mathematics are shown in Table 4.

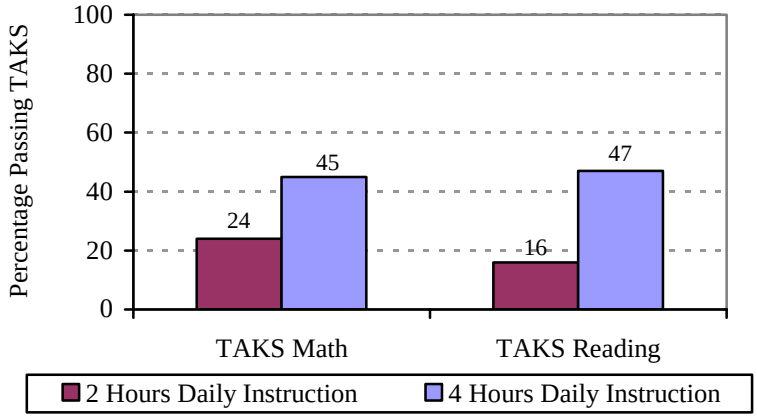
Table 4: Numbers and Percentages of Students Who Took and Passed Summer Administration of Grade 3 TAKS Reading and Grade 5 TAKS Reading and Mathematics, June 2005

| Grade and TAKS Subject | Number Tested | Number Passing | Percent Passing |
|---|---|---|---|
| **Grade 3 Reading (n = 409)** | | | |
| **English** | 186 | 70 | 38% |
| **Spanish** | 196 | 82 | 42% |
| **Total** | 382 | 152 | 40% |
| **Grade 5 Reading (n = 702)** | | | |
| **English** | 616 | 211 | 34% |
| **Spanish** | 64 | 19 | 30% |
| **Total** | 680 | 230 | 33% |
| **Grade 5 Mathematics (n = 591)** | | | |
| **English** | 503 | 184 | 36% |
| **Spanish** | 64 | 11 | 17% |
| **Total** | 567 | 195 | 34% |
| **Summer School Total** | **1,629** | **577** | **35%** |

*Source: TEA TAKS Confidential List of Students' Results, June 2005, and Program Evaluation 2005 Summer School Records*
Note: These data are included in the previously discussed TAKS results.

Twenty-four percent (n = 302) of grade 5 summer school students took both TAKS reading and TAKS mathematics tests in June 2005. The grade 5 students who participated in only one TAKS test received four hours of daily instruction in the subject to be tested. The grade 5 students who took both TAKS reading and TAKS mathematics tests at the end of summer school received two hours of reading and two hours of mathematics instruction daily. A comparison of the TAKS results for these two groups of grade 5 summer school students showed that the students who had four hours of daily instruction in the subject to be tested had a higher passing rate on June 2005 TAKS reading or TAKS mathematics than students who received two hours daily of instruction per subject (Figure 13).

Figure 13: Grade 5 TAKS Results by Number of Daily Hours of Summer School Instruction




*Source: June 2005 TAKS Results and Program Evaluation 2005 Summer School Records*

### GRADE PLACEMENT COMMITTEE

A Grade Placement Committee (GPC) is convened for a grade 3 and 5 student who failed to meet the standard on the TAKS test(s) or SDAA II/alternative assessments. The committee consists of the student's principal, parent or guardian, and reading or mathematics teacher. The committee consults with the Language Proficiency Assessment Committee (LPAC) for LEP students. The Admission, Review, and Dismissal (ARD) committee determines the plan for acceleration for students served by special education. After reviewing all facts, circumstances, and local school board standards, the GPC may promote the student if members conclude by unanimous decision that a student is likely to perform on grade level given additional accelerated instruction during the next school year. According to the SSI grade advancement requirements, the student must receive accelerated instruction the following year whether retained or promoted.

A review of the AISD student data files indicates that of 11,353 K-5 students who participated in ARI, AMI, or another reading or mathematics interventions during 2004-2005 and who were enrolled in fall 2005, 96% (n = 10,913) had been promoted to the next grade level in 2005-2006. Of the 559 grade 5 students who failed one or both grade 5 2005 TAKS tests and who were promoted to grade 6 at middle school in 2005-2006, 217 students failed TAKS reading, 169 students failed TAKS mathematics, and 173 failed both tests. In 2005-2006, ARI/AMI funds are being distributed to middle schools to provide after-school intervention to these grade 6 students.

## PROFESSIONAL DEVELOPMENT

Classroom teachers are primary providers of reading and mathematics interventions. Professional development to support teachers of students who are impacted by SSI is required by the ARI/AMI grant. Teachers who attend the Teacher Reading Academies (TRA) and Teacher Math Academies (TMA) receive a stipend for the multiple-day trainings that focus on scientifically-based research and best practices for reading and mathematics instruction. These trainings are described below.

### READING TRAINING

In support of SSI, many elementary teachers have attended the state-developed Teacher Reading Academies (TRA). The academies began in 1999 with training for kindergarten teachers. As with the other components of SSI, teachers from additional grade levels were added in consecutive years.

TRA provides training in scientific research-based reading instruction to assist classroom teachers with identification of student reading difficulties and strategies to promote student reading success. In 2004-2005, 456 grades K-5 teachers received a stipend to attend the four-day

TRA for a total of 10,944 hours of professional development. In addition, 12 teachers completed TRA online.

Because TRA training sessions have been offered for multiple years, teachers new to grades K-5 instruction were the focus of this professional development. Professional Development Academy (PDA) records indicated that since June 2000, 2,647 AISD grades K-5 teachers had participated in the Texas Reading Academies.

In 2004-2005, 327 teachers attended 1,932 hours of professional development in reading on district ARI curriculum resources and teaching strategies, including summer school training. In addition, 904 K-5 teachers attended 6,544 hours of reading professional development other than ARI/AMI or Teacher Reading Academies. In summary, 1,687 elementary teachers attended 19,420 hours of training in reading for an average of 12 hours per person in 2004-2005.

### MATHEMATICS TRAINING

The Texas Math Initiative was designed to help all Texas students in the middle grades reach grade level in mathematics skills by 2005 and beyond. The Teacher Math Academies (TMA) review the TEKS to create a scope and sequence for Algebra readiness and a focus on diagnostic assessment to inform teaching and to differentiate instruction.

In preparation for the SSI requirement that grade 8 students pass TAKS mathematics in 2008, 55 AISD teachers participated in the three-day grades 5-8 TMA in 2004-2005 for a total of 990 hours of professional development in mathematics. In addition, 151 AMI teachers participated in professional development specific to the AMI intervention program (705 hours). Districtwide, 575 elementary teachers attended 5,092 hours of professional development in mathematics. In summary, 781 teachers attended 6,787 hours of mathematics training to support SSI promotion requirements for an average of 9 hours per person in 2004-2005.

## STRENGTHS OF THE 2004-2005 ARI AND AMI PROGRAM

In 2004-2005, teachers from the school-year ARI and AMI intervention program, as well as the summer school principals, teachers, and mentor teachers, were surveyed about the strengths of the district elementary reading and mathematics intervention plan. A summary of their feedback is included. (See Appendix C for responses to 2004-2005 ARI/AMI Teacher Survey.)

### SCHOOL-YEAR ARI AND AMI TEACHER FEEDBACK

It was important to the program managers to obtain feedback from the teachers and mentor teachers who implemented the reading and mathematics intervention plan. ARI and AMI teachers were asked to complete a survey about the reading and mathematics intervention program during 2004-2005. The teacher surveys were mailed to the contact person at each campus to be distributed to all ARI, AMI, and OEYP school-year intervention teachers (331

teachers responded). Teachers overwhelmingly agreed that the immediate year-long approach to reading and mathematics interventions benefited students. According to one teacher who responded about the strengths of the program, "The program targeted those most in need of extra help and provided us a guideline of what to teach and the materials to use." Another teacher wrote, "The students were aware of how committed everyone was to help them be successful." Areas that received praise, in order of the number of comments, include the following.

- **Small Group/Individualized Instruction** (n = 130) - Highest on the teachers' list of reading and mathematics intervention program strengths was small group instruction with individualized instruction. Teachers met with groups of five to eight students. One after-school teacher wrote, "I provided struggling readers more opportunity to learn and apply strategies in reading and also gave them more practice doing graphic organizers independently." Another teacher wrote, "The program offered tutoring for my low students to give them a second chance to be on grade level."
- **Curriculum and Materials** (n = 65) – Curriculum and materials for ARI and AMI were varied and sufficient to meet the needs of students who were having difficulties in reading or mathematics. One teacher wrote, "I really enjoyed the planned lessons (from TEA produced book). We were able to teach and then immediately assess the student's progress." Another teacher said, "The program was well-organized and material for instruction given to teachers was very good." Prepared plans and materials, graphic organizers, mathematics manipulatives, and the variety of materials helped motivate students and made learning fun, according to teachers.
- **Support Staff** (n = 63) – ARI and AMI teachers greatly appreciated the support they received from program managers, instructional specialists, and campus staff, as well as other teachers who worked with the program. In response to the statement, "The contact person at my campus worked cooperatively with teachers to make this intervention beneficial for students," 95% agreed or strongly agreed. One teacher said that the classroom teacher and instructional specialist coordinated in-school and after-school lessons to maximize the instruction. Another teacher stated that the strength of the program was due to the "dedicated teacher involvement and sincere and faithful parents" whose extra effort made the program a success.

### SUMMER SCHOOL PRINCIPAL AND TEACHER FEEDBACK

Summer school principals, teachers, and mentor teachers were asked to respond to a survey to give input to program managers about strengths of the 2005 summer program and possible program improvements for the 2006 summer reading and mathematics intervention program. (See Appendix D for responses to 2004-2005 Summer School Teacher Survey.) The following strengths of the summer program according to 135 summer school teachers (N = 136), 8 mentor teachers (N = 8), and 8 principals (N = 8) are listed in order of frequency:

- Well organized materials (n = 51);
- Rigorous curriculum (n = 43);
- Strong leadership from program managers and principals (n = 29);
- Strong campus support staff (mentors, parent specialists, office clerk) (n = 25); and
- Experienced and knowledgeable teachers (n = 11).

## AREAS FOR ARI AND AMI PROGRAM IMPROVEMENT

### SCHOOL-YEAR ARI AND AMI TEACHER FEEDBACK

While most intervention teachers agreed that struggling students benefited from the 2004-2005 ARI/AMI program, teachers had suggestions for improving future intervention programs. A summary of the program improvement suggestions made by school-year ARI and AMI teachers follows.

- **Curriculum and Materials** (n = 52) –While some teachers listed curriculum and materials as strengths of the program, others saw a need for more specific types of materials, such as Spanish materials, diverse materials, TAKS materials, lesson plans, and mathematics materials. One teacher said that an improvement would be "a better curriculum of high interest to students to motivate them." Teachers also asked for specific assessments to record progress during intervention. In addition, some teachers asked for more training on the use of materials.
- **Less Paperwork** (n = 26) – Many teachers indicated that the amount of paperwork required for the after-school interventions should be reduced. Teachers were required to provide supporting documentation for the ARI/AMI grant evaluation. Because of funding concerns, the mentor teacher was cut from the 2004-2005 budget. The mentor teacher had previously handled the submission of the documentation to program evaluation staff. One teacher said, "One person on each campus should be paid to do only the paperwork. The amount of time spent on paperwork is staggering."
- **Begin Interventions Earlier** (n = 22) – Even though ARI and AMI grant funds were available during fall 2004, some campuses that received limited funding postponed their ARI/AMI interventions until the spring semester. Many teachers expressed their concerns that this was not enough time to accelerate learning before the TAKS tests. One teacher wrote, "Start earlier with the same order and intensity as at end of the year. Don't wait until the end."

### SUMMER SCHOOL PRINCIPAL AND TEACHER FEEDBACK

Summer school principals (N = 8), teachers (N = 135), and mentor teachers (N = 8) were asked for feedback regarding the 2005 elementary summer program for grade 3 and 5 students

who failed TAKS. Although summer school staff were complimentary of the program, they had the following recommendations for future summer school programs (listed in order of frequency reported).

- **Curriculum and Materials** – (n = 84) – Teachers had many suggestions for improving the curriculum and materials for summer school, which have been passed along to program managers. For example, some teachers asked for headsets for listening centers that do not have radio selections. Many of the grade 5 students listened to the radio instead of the instructional material.
- **Planning Time** (n = 33) – Teachers asked for more planning time. Only 15 minutes were built into their daily summer schedule for planning. Many teachers explained that that was not enough time to plan lessons for struggling readers.
- **Student Information** (n = 19) – Principals, teachers, and mentor teachers stated that they needed more information (e.g., TAKS test version, test accommodations, TAKS objective specifics) about students from the beginning. According to teachers, there should be better communication from home campuses and clearer registration procedures. Only 50% of the teachers agreed or strongly agreed with the statement, "Student information provided by home campuses was adequate for placement of students in the appropriate learning environment at my summer campus."
- I**ncrease Instruction Time** (n = 13) – Teachers who taught grade 5 students who had failed both TAKS reading and TAKS mathematics expressed concern that two hours of instruction in each subject was not enough time to prepare students for the third administration of the tests.

## PROGRAM MANAGER FEEDBACK

Every year there are new challenges for the program manager of the ARI/AMI entitlement grant. In 2004-2005, grade 5 reading and mathematics intervention instruction was added to the program. The amount of the ARI/AMI entitlement grant increased from 2003-2004 to 2004-2005, but with grade 5 added, more students were eligible to be served. The program manager was asked for feedback about the strengths, challenges, and suggestions for improvements for the 2005-2006 ARI/AMI intervention program.

### STRENGTHS OF THE PROGRAM

There were many benefits to the ARI/AMI intervention program for teachers and students, according to the program manager. The following strengths of the program were apparent during the school year and the summer program:

- Professional development for teachers,
- Instructional materials for intervention classes,

- Overall student achievement in the program, and
- Year-round intervention for struggling readers.

**MAJOR CHALLENGES**

The program manager said that because SSI requirements were extended to grade 5 in 2004-2005, "providing campuses with enough funding in a timely manner to meet the needs of all identified struggling learners" was a major challenge. According to the program manager, "coordinating with other departments to ensure a seamless, integrated process and to ensure program implementation" was another challenge throughout the school year and during summer school. Other challenges included the following:

- Due to limited funding, ARI/AMI could not provide stipends for campus mentors to support school-year intervention teachers and to oversee and monitor program implementation.
- It was difficult to plan for summer school transportation because results from the second administration of the grade 5 TAKS mathematics test were received from the state shortly before summer school began.
- Home campus staff did not identify special education students who were eligible for summer school and did not provide the information to the special education department in a timely manner.

**IMPROVEMENTS FOR THE PROGRAM**

The program manager indicated that, as teachers suggested, the amount of paperwork required for program documentation should be streamlined so that teachers, principals, and contact persons for the ARI/AMI grant are not overly burdened. According to the program manager, additional funding, either local or state, is needed to ensure that all eligible students are served. The program manager also would like to provide additional funding for teacher planning and training in 2005-2006. Suggestions for improving the 2006 summer school program include the following:

- Use only four or five sites (instead of eight) during the summer session that can easily accommodate 25-30 classrooms. This will allow adequate space for each intervention program (reading, mathematics, and science).
- Provide summer sites with full-time mentors for both reading and mathematics to monitor and support classroom instruction, and full-time parent specialists to provide home-school contact and support.
- Ensure that campuses provide testing and accommodation information for all eligible students scheduled to attend the summer session. In addition, names of students eligible for SDAA II should be provided by early May so that summer school placements are made appropriately for eligible special education students.

## SUMMARY AND RECOMMENDATIONS

In 2004-2005, the *Accelerated Reading Instruction* (ARI) and the *Accelerated Mathematics Instruction* (AMI) entitlement for AISD was $1,667,724. Eighty percent of the ARI/AMI funds were used for payroll costs, including extra-duty pay for teachers, professional support, and summer school teachers and staff. To supplement this entitlement, campuses used other resources (e.g., local funds, and grant funds such as Reading First, Optional Extended Year, Title I, 21st Century, Prime Time, and bilingual) to fund interventions for students in grades K-5 at risk for reading and mathematics difficulties.

In 2004-2005, intervention students in grades K-5 (N = 13,143) participated in 16,745 reading and/or mathematics interventions (outside of the regular classroom) funded by ARI, AMI, and other sources. Twenty-seven percent of grades K-5 students served (n = 3,602) participated in both reading and mathematics interventions in 2004-2005.

Of the 23,411 instances where students in grades K-5 were identified as at risk for reading and/or mathematics difficulties, 72% (n= 16,745) were addressed with interventions outside of the classroom. The other 28% (n = 6,666) of those instances were addressed with Level 1 classroom intervention only.

The ARI/AMI grant provided for more than twice the number of interventions in 2004-2005 (N = 5,386) as in 2003-2004 (N = 2,383). Of the total number of interventions provided in 2004-2005, 69% (n = 11,618) were for reading and 31% (n = 5,127) were for mathematics. The K-5 interventions were distributed as follows: 18% ARI, 14% AMI, 51% other reading, and 17% other mathematics interventions.

Overall, 67% of reading intervention students in grades 3-5 passed TAKS reading and 63% of mathematics intervention students in grades 3-5 passed TAKS mathematics. Of the intervention students in grades 3-5, 41% participated in both reading and mathematics interventions. A summary of TAKS results for grades and subjects affected by the SSI promotion requirement follows:

- Of all grade 3 reading intervention students tested (n = 2,486), 86% passed 2005 TAKS reading.
- Of all grade 5 reading intervention students tested (n = 2,003), 73% passed 2005 TAKS reading.
- Of all grade 5 mathematics intervention students tested (n = 1,770), 74% passed 2005 TAKS mathematics.
- Of the 1,629 students in grades 3-5 who took the third administration of TAKS at summer school, 35% (n = 577) of the students passed (36% reading and 34% mathematics).

Twenty-four percent (n = 302) of grade 5 summer school students took both TAKS reading and TAKS mathematics tests in June 2005. The grade 5 students who participated in

only one TAKS test received four hours of daily instruction in the subject to be tested. The grade 5 students who took both TAKS reading and TAKS mathematics tests at the end of summer school received two hours of reading and two hours of mathematics instruction daily. A comparison of the TAKS results for these two groups of grade 5 summer school students showed that the students who had four hours daily of instruction in the subject to be tested had a higher passing rate on June 2005 TAKS reading or TAKS mathematics than students who received two hours daily of instruction per subject.

Of the students in grades K-2 who received reading intervention, 59% (n = 2,831) were on grade level in reading by the end of the year. There is no on-grade-level assessment for K-2 mathematics students.

In 2005-2006, the *Student Success Initiative* advances to grade 6. In 2005-2006, ARI/AMI funds are being distributed to middle schools for the purpose of providing after-school intervention to promoted grade 6 students who failed to meet the passing standard for one or both grade 5 TAKS tests. For grades K-5 students (N = 11,353) who participated in any reading or mathematics intervention during 2004-2005 and who were enrolled in fall 2005, 96% (n = 10,913) were promoted to the next grade level in 2005-2006. Of the 559 grade 5 students who failed one or more grade 5 2005 TAKS test and who were promoted to grade 6 at middle school in 2005-2006, 217 students failed reading, 169 students failed mathematics, and 173 failed both tests.

The ARI/AMI intervention program provided many benefits for teachers and students, according to the program manager. For example, the ARI/AMI entitlement provided a year-round intervention for students struggling in reading or mathematics. Some strengths of the program that were reported by teachers included: small group individualized instruction, quality curriculum and materials, and strong support for the program manager and instructional specialists.

While most intervention teachers agreed that the 2004-2005 ARI/AMI program benefited struggling students, the program manager and teachers had suggestions for improving future intervention programs. According to the program manager, the District needs to serve all eligible students, which will require additional funding. ARI and AMI teachers suggested that there should be more variety in curriculum and materials, and that less paperwork should be required to allow more instructional time.

The need for reading and mathematics interventions is great among AISD elementary students. In 2004-2005, 39% of all students in grades K-5 were identified as eligible for reading or mathematics intervention. The challenge for the District is to find the resources to provide reading and mathematics interventions for all grades K-5 students who are eligible. In 2004-2005, 72% of eligible students were served. Available resources need to be maximized.

Professional development in effective instructional strategies to use with students who are at risk of reading or mathematics difficulties is critical to overall achievement.

Classroom reading and mathematics interventions must be of the highest quality because many of the students needing academic assistance will not have the opportunity to participate in interventions outside of the regular classroom. With the promotion requirements for grade 3 and 5 students, the District should continue to seek new reading and mathematics funding for high-needs campuses and maximize use of funds from existing grants. The following recommendations to improve the K-6 intervention programs in 2005-2006 are offered to district decision-makers for consideration:

- Require more teacher training to expand knowledge of classroom-based reading and mathematics instruction and intervention strategies and to support intervention programs inside and outside of the classroom. (Classroom instruction is the first line of intervention.)
- Provide funding and support for all students in grades 3-5 who need reading and/or mathematics intervention to prepare these students for the SSI promotion requirements. (Only 72% of eligible students were served in 2004-2005.)
- Seek additional funding to support prevention efforts in the earlier grades (K-2) that are not a focus for ARI/AMI. (In grades K-2, only 65% of eligible reading and 35% of eligible mathematics students were served.)
- Closely monitor the grade 6 reading and mathematics interventions at middle school as the grant is expanded. (ARI/AMI funds will be used at middle school for the first time in 2005-2006.)
- Follow the progress of grade 5 students who failed one or more TAKS tests in 2004-2005, but were promoted to grade 6 in 2005-2006. (After failing one or more TAKS tests, 559 students were promoted to grade 6 at middle school.)
- Provide more hours of instruction for grade 5 summer school students who need to pass both TAKS reading and TAKS mathematics. (Students who had four hours of instruction daily in the subject to be tested had a higher passing rate on June 2005 TAKS tests than students who received two hours of instruction daily per subject.)

# APPENDICES

## APPENDIX A: AISD STUDENT SUCCESS INITIATIVE PLAN, 2004-2005

The 2004-2005 *AISD Student Success Initiative Plan* included the comprehensive core program for kindergarten through grade 5 as well as the after-school accelerated instruction program and summer school. The SSI Plan is the district's plan to provide early intervention to accelerate reading and mathematics learning for elementary students who need additional support.

### Accelerated Reading Instruction

The AISD goal for the 2004-2005 ARI program was that 100% of grade 3 and 5 students would pass the reading portion of TAKS. The district SSI plan is a comprehensive research-based program of reading instruction focused on phonemic awareness, phonics, fluency, vocabulary, and comprehension. In addition, reading intervention is provided to students who need additional instruction time within the classroom, during the school day (outside of the classroom), before or after school, and during the summer. Components of the State SSI initiative for reading include the following:

- Reading instruction based on scientific research-based methods of reading instruction that have been proven to work;
- Early reading assessment instruments (Texas Primary Reading Inventory, TPRI, and Tejas LEE) to make sound instructional decisions;
- Teacher Reading Academies to improve classroom reading instruction;
- Immediate reading intervention for children who struggle; and
- Elimination of social promotion.

Beginning of the year assessments are critical to inform teachers, parents, and administrators of students' academic needs. AISD used the following assessments to determine eligibility for accelerated reading instruction:

- Kindergarten through grade 2 - State-developed TPRI and Tejas LEE, and DRA (Developmental Reading Assessment);
- Grade 3 - District Benchmark beginning-of-year reading assessment;
- Grade 4 - 2004 TAKS reading and the District Benchmark beginning-of-year reading assessment; and
- Grade 5 – 2004 TAKS reading and the District Benchmark beginning-of-year reading assessment.

While ARI focused on grade 3 and 5 reading interventions, campuses provided intervention to other eligible students through funding sources other than ARI. Small group instruction, for an average of five to eight students per teacher, was provided for identified students. Students met with ARI teachers for 60-90 minutes per class for a total of three hours per week. While most classes met after school, a few schools held sessions before school or conducted Saturday morning classes. Three sessions were planned for the school year and a

special session for students who did not pass the first administration of TAKS, March 21-May 20. The students who did not pass the April grade 3 or grade 5 TAKS reading tests were provided summer school instruction before the June TAKS tests. AISD's comprehensive research-based program of reading instruction was based on the following components:

- Instructional format that is consistently informed by reading assessment data and that provides repeated opportunities for students to engage in intensive, targeted learning;
- Instructional format that focuses on five areas of reading instruction, namely, phonemic awareness, phonics, fluency, vocabulary, and comprehension;
- Structure that provides for continuous monitoring of student achievement to adjust the program content and/or instructional approach to meet the reading needs of each student; and
- Program communications that frequently report individual student progress to the classroom teacher and to the parent/guardian of the student.

The AISD Curriculum Department provided initial training for ARI teachers on curriculum and strategies for struggling students. Students received reading intervention based on a deficiency in one of the following areas:

- Decoding skills - Involves skills in translating symbols (e.g., alphabet letters) into recognizable syllables and words; and
- Comprehension skills - Requires understanding of underlying concepts and critical thinking.

Curriculum resources selected for the ARI intervention program are listed in Table 5.

Table 5: Curriculum Used for AISD Grades 3 -5 Reading Intervention by Language of Instruction, 2004-2005

| Grade | Language of Instruction | Reading Deficiency | Curriculum Used | Hours/ Week |
|---|---|---|---|---|
| **Grade 3** | English | Low Decoder | SRA Corrective Reading Level A | 3 hr/week |
| | Spanish | Low Decoder | Harcourt Trofeos | 3 hr/week |
| | English or Spanish | Low Comprehension | Orchestrating Reading Success- Non-fiction & Leveled Texts | 3 hr/week |
| **Grade 4** | English | Low Decoder | SRA Corrective Reading Level A or B1 | 3 hr/week |
| | English or Spanish | Low Comprehension | Orchestrating Reading Success- Myths, Fables, & Tales | 3 hr/week |
| **Grade 5** | English | Low Decoder | SRA Corrective Reading Level A, B1, or B2 | 3 hr/week |
| | English or Spanish | Low Comprehension | Orchestrating Reading Success- In the Zone | 3 hr/week |

*Source: AISD Department of Curriculum*

**Accelerated Mathematics Instruction**

While K-5 students could be served by the grant in 2004-2005, the focus of the AISD AMI program was to provide intensive intervention for grade 5 students that would prepare them for the 2005 grade 5 TAKS mathematics test. Eligibility for intervention was based on 2004 TAKS mathematics scores, as well as fall 2004 District Benchmark mathematics test data.

The structure of the AMI intervention program was the same as that of ARI. Frequent monitoring of AMI student progress was important to the success of the program. As with reading, the Level 1 intervention was in the classroom. Mathematics intervention was based on an instructional format that focuses on the underlying process and tools embedded throughout the five content objectives: number, operation, and quantitative reasoning; patterns; relationships, and algebraic thinking; geometry and spatial reasoning; measurement; and probability and statistics.

The Elementary Mathematics Intervention Plan was designed to assist Level 2 intervention teachers in providing small group, intensive, short-term instruction. Level 2 interventions were provided to students who failed to master TEKS (Texas Essential Knowledge and Skills) that had already been taught during the core classroom instruction time. The following TEKS-based resources were suggested for use with AMI students at the initial training of AMI teachers:

- *TAKS Study Guide* – A TEA resource that addresses the core knowledge and skills necessary to master each TEKS component using carefully laid out lessons;
- *Elementary and Middle School Mathematics: Teaching Developmentally* – A resource by John Van de Wall that allows teachers not familiar with knowledge and skills taught at other grade levels to understand how key mathematical concepts (e.g., place value, computation, algebraic reasoning, geometry, measurement, probability and statistics, problem-solving) develop in grades K-8;
- *Mathematics Standards in the Classroom* – A reteaching tool for clarifying activities and test items to use with students developed by the University of Texas Dana Center;
- *Orchestrating Mathematics Success* – AISD-developed curriculum for mathematics intervention programs; and
- *Region 4 Benchmark Assessments* –A rubric from Region 4 Educational Service Center that can be used to assess every tested grade level TEKS.

## APPENDIX B: 2004-2005 AISD GRADE LEVEL INFORMATION FOR GRADE 3-5 READING AND MATHEMATICS INTERVENTION STUDENTS

### 2004-2005 Reading Interventions

| Grade | ARI # Served | ARI # TAKS Rdg | ARI # Passed TAKS Rdg | ARI % Passed TAKS Rdg | Other Reading # Served | Other Rdg # TAKS Reading | Other Rdg # Passed TAKS Rdg | Other Rdg % Passed TAKS Rdg | All Reading # Served | All Reading # Tested | All Reading # Passed TAKS Rdg | All Reading % Passed TAKS Rdg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **3** | 1,504 | 1,411 | 1,104 | 78% | 1,318 | 1,075 | 1,044 | 97% | 2,822 | 2,486 | 2,148 | 86% |
| **4** | 297 | 272 | 131 | 48% | 1,456 | 1,283 | 712 | 55% | 1,753 | 1,555 | 843 | 54% |
| **5** | 1,306 | 1,251 | 744 | 59% | 900 | 752 | 712 | 95% | 2,206 | 2,003 | 1,456 | 73% |
| **Total** | **3,107** | **2,934** | **1,979** | **67%** | **3,674** | **3,110** | **2,468** | **79%** | **6,781** | **6,044** | **4,447** | **74%** |

### 2004-2005 Mathematics Interventions

| Grade | AMI # Served | AMI # TAKS Math | AMI # Passed TAKS Math | AMI % Passed TAKS Math | Other Math # Served | Other Math # TAKS Math | Other Math # Passed TAKS Math | Other Math % Passed TAKS Math | All Math # Served | All Math # Tested | All Math # Passed TAKS Math | All Math % Passed TAKS Math |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **3** | 405 | 374 | 192 | 51% | 892 | 792 | 452 | 57% | 1,297 | 1,166 | 644 | 55% |
| **4** | 545 | 497 | 220 | 44% | 942 | 848 | 525 | 62% | 1,487 | 1,345 | 745 | 55% |
| **5** | 1,326 | 1,229 | 812 | 66% | 628 | 541 | 497 | 92% | 1,954 | 1,770 | 1,309 | 74% |
| **Total** | **2,276** | **2,100** | **1,224** | **58%** | **2,462** | **2,181** | **1,474** | **68%** | **4,738** | **4,281** | **2,698** | **63%** |

*Source: AISD 2005 TAKS Data Files and Program Evaluation ARI/AMI/Other Intervention Participation Records, 2004-2005*

Note: Numbers are not duplicated within subject, but a student can be counted in reading and mathematics.

## APPENDIX C: RESULTS OF 2004-2005 ARI AND AMI TEACHER SURVEY

The school-year ARI and AMI teachers (n = 331) responded to statements about the district reading and mathematics interventions. The scale is as follows: 5=Strongly Agree; 4=Agree; 3=Unsure; 2= Disagree; 1=Strongly Disagree. Responses that are below an average of 4 (agree) are in bold.

**ARI/AMI Teacher Survey Responses, 2004-2005**

| | Number of Responses | Average Response |
|---|---|---|
| **1) Professional development provided useful information about the curriculum to be used in accelerated learning for struggling students.** | 296 | 3.9 |
| **2) The curriculum used in my program was effective in accelerating student progress.** | 324 | 4.0 |
| **3) The monitoring assessments used in my program gave accurate information about student progress.** | 328 | 3.9 |
| **4) Adequate planning time was available for effective implementation of the accelerated instruction program at my campus.** | 329 | 3.7 |
| **5) The contact person at my campus worked cooperatively with teachers to make this intervention beneficial for students.** | 315 | 4.5 |
| **6) I was provided adequate information about the accelerated instruction program in the following areas:** | | |
| a) **Eligibility criteria.** | 322 | 4.3 |
| b) **Curriculum and instruction.** | 328 | 4.1 |
| c) **Assessment options.** | 325 | 3. 9 |
| d) **Data collection and reporting.** | 321 | 4.2 |
| e) **Grant requirements.** | 324 | 4.1 |
| f) **Payroll procedures.** | 313 | 4.1 |

*Source: 2004-2005 ARI, AMI, and OEYP Reading and Mathematics Intervention Teacher Survey*

7) What were the strengths of the accelerated instruction program at your campus?
See Page 17 for summarized responses to this question.

8) What suggestions do you have for improving next year's reading and/or mathematics intervention programs?
See Page 19 for summarized responses to this question.

## APPENDIX D: RESULTS OF 2005 SUMMER SCHOOL TEACHER SURVEY

The summer school ARI and AMI teachers (n = 135) responded to statements about the district reading and mathematics interventions. The scale is as follows: 5=Strongly Agree; 4=Agree; 3=Unsure; 2= Disagree; 1=Strongly Disagree. Responses below an average of 4 (agree) are in bold.

**2005 Summer School Teacher Survey Responses**

| | Number of Responses | Average Response |
|---|---|---|
| 1) Summer school professional development provided me with specific practices that I could use to accelerate learning for students who had previously failed the TAKS test(s). | 130 | 4.0 |
| 2) The summer school curriculum and materials provided were helpful in accelerating learning for students who had previously failed the TAKS test(s). | 134 | **3.8** |
| 3) The mentor teacher at my summer campus worked cooperatively with teachers to make this intervention successful for students. | 135 | 4.4 |
| 4) The parent support specialist was an important liaison between my summer school campus and the parents. | 100 | **3.4** |
| 5) Student information provided by home campuses was adequate for placement of students in the appropriate learning environment at my summer campus. | 128 | **3.3** |
| 6) The principal at my summer campus provided high quality leadership with clear expectations for teachers. | 135 | 4.8 |
| 7) District personnel provided valuable support to the staff at my summer campus. | 130 | **3.8** |
| 8) The TAKS testing process was well organized at my summer campus. | 119 | 4.3 |

*Source: 2005 Elementary Summer School Teacher Survey*

9) What were the strengths of the accelerated instruction program at your summer school campus?

See Page 18 for summarized responses to this question.

10) What suggestions do you have for improving next year's elementary summer school program?

See Page 20 for summarized responses to this question.

## REFERENCES

Accelerated Reading Instruction (ARI) and Accelerated Mathematics Instruction (AMI) Funding Guide (2004). Austin, TX: Texas Education Agency.

AISD Elementary Mathematics Department (2004). Tier 2 Elementary Mathematics Intervention Plan. Austin, TX: Austin Independent School District.

AISD Language Arts Department (2004). Student Success Initiative Plan. Austin, TX: Austin Independent School District.

Beaver, J. (1998). Developmental Reading Assessment. Glenview, IL: Celebration Press.

Curry, J. (2004) AISD K-4 Accelerated Reading and Mathematics Instruction Evaluation, 2003-04 (Publication 03.09). Austin, TX: Austin Independent School District.

Leave No Child Behind Act of 2001, P.L. 107-110, U.S. 107th Congress (2001). From http://www.ed.gov/legislation/ESEA02/.

Senate Bill 4 (1999). 76th Legislature, Austin, TX: (http://www.capitol.state.tx).

TPRI Teacher's Guide: K-2 Early Reading Assessment (2005). Austin, TX: Texas Education Agency.

Tejas LEE Guía de Administración: El inventario de lectura en español de Tejas Nivel Primario (2003). Austin, TX: Texas Education Agency.

Texas Education Agency (2004). Accelerated Reading Instruction, Texas Reading Initiative. From http://www.tea.state.tx.us/reading/interest/accreains.html.

Texas Education Agency (2005). State-Developed Alternative Assessment II. From http://www.tea.state.tx.us/student.assessment/resources/ssi/index.html.

Texas Education Agency (2005). Student Success Initiative. From http://www.tea.state.tx.us/student.assessment/resources/ssi/index.html.

Washington, W. (2005). Optional Extended Year Program Summary Report, 2004-2005 (Publication 04.08). Austin, TX: Austin Independent School District.

# Austin Independent School District

**Office of Accountability**
Maria Whitsett, Ph.D.

**Department of Program Evaluation**
Holly Williams, Ph.D.
Martha Doolittle, Ph.D.

**Author**
Janice Curry



Publication Number 04.07
December 2005