

Evaluation of Intensive Reading Instruction and Intensive Math Instruction 2006-2007 School Year



Supplement to The Student Success Initiative: An Evaluation Report, Submitted by the
Office for Planning, Grants, and Evaluation

Evaluation of Intensive Reading Instruction and Intensive Mathematics Instruction: 2006–07 School Year

Supplement to The Student Success Initiative: An Evaluation Report

Executive Summary

**Prepared by
Office for Planning, Grants and Evaluation
Texas Education Agency**

February 2009

Texas Education Agency

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The Division of Evaluation, Analysis, and Planning wishes to thank all agency staff who contributed to this report, and all school districts and open-enrollment charter schools for the timely and accurate submission of their required reports to the agency.

Citation. Texas Education Agency. (2009). Evaluation of Intensive Reading Instruction and Intensive Mathematics Instruction: 2006–07 School Year. Austin, TX: Author.

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This report is available at TEA's website at http://ritter.tea.state.tx.us/opge/progeval/ReadingMathScience/IRI_IMI_Evaluation_2009.pdf

Acknowledgements

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The Office of Planning, Grants and Evaluation wishes to thank the following TEA staff for their assistance providing feedback on drafts of this report: Lizzette Reynolds; Anita Givens; Kelly Callaway; Monica Martinez; and Jim Van Overschelde, Ph.D.

Final editing assistance was provided by Jerry Hagins under contract to TEA and by Virginia Beck.

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Executive Summary

Background

The Student Success Initiative (SSI) was created in 1999 by the 76th Texas Legislature to provide a system of academic support for students in Texas public schools to ensure the achievement of on-grade-level performance in reading and mathematics to students in Texas public schools. SSI consists of a comprehensive set of services that includes early diagnostic testing, research-based interventions for students struggling in reading and mathematics, ongoing progress monitoring for students, and professional development for teachers.

Under SSI, beginning in the 2002–03 school year, students in Grade 3 had to pass the reading section of the state-mandated assessment instrument, the Texas Assessment of Knowledge and Skills (TAKS), before being promoted to the next grade level. Beginning in the 2004–05 school year, students in Grade 5 had to pass both the reading and mathematics sections of the state assessment before being promoted; in the 2007–08 school year, Grade 8 students had to pass both reading and mathematics before advancing to Grade 9.¹ Students have the opportunity to take the TAKS up to three times before a decision is made to retain them at one of three critical grade levels (Grades 3, 5, and 8). Students who fail the reading or mathematics sections of TAKS are provided with additional instruction in the subject(s) failed.

Among the components designed to support students who fail the reading or mathematics sections of TAKS are Intensive Reading Instruction (IRI) and Intensive Mathematics Instruction (IMI). Following the authorization of SSI, the

¹ Local grade placement committees are authorized to advance students who have failed the state assessment in critical years (Grades 3, 5, 8) if it is deemed that the student would succeed in the next grade.

79th Texas Legislature appropriated funds for IRI and IMI programs in schools that had failed to improve students' TAKS scores in reading and mathematics. Rider 48(a) of the General Appropriations Act passed by the 79th Texas Legislature in 2005, authorized the use of these funds. Up to \$15 million was authorized for IRI and up to \$5 million was authorized for IMI for use in the 2006–2007 biennium.

IRI grants funded the purchase of proprietary standalone reading programs especially designed to support struggling readers. In the 2006–07 school year, IRI funding was available to serve students in Grades 4–7. As with IRI, IMI grant funds were used to purchase proprietary programs that were designed for students struggling in mathematics. IMI was also funded in the 2006–07 school year to serve students in Grades 4–7. Grant activities began as early as Summer 2006 and could continue through Summer 2007.

Purpose

The purpose of this evaluation is to examine the implementation of IRI and IMI and to assess the extent to which IRI and IMI impacted student outcomes in terms of TAKS performance and grade retention. This evaluation addresses the following research questions:

- What were the characteristics of students and campuses participating in IRI and IMI?
- How were IRI and IMI programs implemented? What were the barriers and facilitators affecting successful program implementation?
- What was the relationship between participating students' performance (pass or fail) on TAKS reading and mathematics prior to participation (Spring 2006) and their performance during the term of the program (Spring 2007) and one year after program participation (Spring 2008)?

- How did student achievement scores on TAKS reading and mathematics change during and after the term of the programs? Were student achievement scores on TAKS reading and mathematics during and after the program related to students' levels of program participation? Did this relationship depend on other student characteristics?
- What trends in retention/promotion patterns are associated with participation in IRI and IMI?

Methods

Data for the evaluation were obtained from the Texas Public Education Information Management System (PEIMS), Academic Excellence Indicator System (AEIS) and TAKS databases, IRI and IMI grant applications, student data uploaded by grantees specifically for the evaluation, and campus-level progress reports submitted by grantees to the Texas Education Agency (TEA). The uploaded student data identified the students participating in IRI and IMI as well as during which semesters they participated; thus, these data were central to the evaluation.

The evaluation utilizes descriptive statistics to examine the characteristics of the students in Grades 4–7 served by IRI/IMI, to examine the IRI/IMI campuses themselves, and then to compare these characteristics with those of students and campuses statewide. Descriptive statistics were also used to present information from grantees' progress reports that speaks to the implementation of IRI and IMI in terms of supplemental funding, instructional strategies utilized, methods of identifying students to participate, the extent to which programs were fully implemented (including barriers and facilitators to implementation), and the reported types and effectiveness of technical assistance.

Analysis of the relationship between IRI/IMI program participation and TAKS test scores first utilized descriptive statistics that identified students' pass or fail status on the first administration of TAKS reading and mathematics tests across three testing years (Spring 2006, Spring 2007, and Spring 2008). The overall impact of IRI/IMI participation on TAKS reading and mathematics scores was evaluated by examining the difference between TAKS 2006 reading or mathematics scores (prior to participation in IRI or IMI) and TAKS 2007 and TAKS 2008 reading or mathematics scores. Analysis of variance was used to test the effect of varying levels of exposure to IRI and IMI program activities on TAKS scores for a variety of subgroups defined by demographics and Spring 2006 TAKS performance.

Findings

These findings address students in Grades 4–7 who participated in IRI or IMI for one or more semesters in the time period from Summer 2006 through the 2006-07 school year, including Summer 2007. In total, 338 campuses received IRI grants and 117 campuses received IMI grants. Based on student uploads from 277 IRI and 91 IMI campuses, there were 18,710 students in Grades 4–7 who were served by IRI and 5,771 students in Grades 4-7 who were served by IMI. The number of students served by IRI and IMI at non-reporting campuses is not known.

Characteristics of Students/Campuses Participating in IRI and IMI

- Among the students served by IRI and IMI, there were proportionately more African Americans and Hispanics, and proportionately fewer Whites than in the state student population in the same grade levels.
- Among the students served by IRI and IMI, there were proportionately more economically disadvantaged, limited English proficiency, special

education, and retained students than in the state student population in the same grade levels.

- IRI/IMI campuses had lower TAKS passing rates than the state rates in the same grade levels. Campus level TAKS passing rates were a criterion for grant eligibility, so this finding suggests that grants were successfully awarded to high needs campuses.

IRI/IMI Program Implementation

- Small-group tutoring was the most common delivery method for IRI activities (82.2%) and IMI activities (80.4%). Many IRI and IMI grantees also reported using one-on-one tutoring (41% and 62%, respectively) and computer software (50% and 57%, respectively) to deliver program activities.
- Most IRI schools and IMI schools offered program activities during school as part of a core class (80.7% and 79.4%, respectively) or after school (60.8% and 69.1%, respectively). Among IMI grantees (41%), summer school was also a common time for delivering activities.
- On average, IRI and IMI schools rated their levels of implementation of IRI/IMI programs as a 3.9 on a scale of 0 (no implementation) to 5 (full implementation). This score suggests that grantees felt they were currently implementing the programs, but that the programs were not yet fully implemented.
- The most common facilitators to program implementation cited by IRI and IMI grantees included support from campus administration, teachers, and

district administration. Professional development and assessment/use of data were also seen as facilitators by the majority of grantees.

- The most commonly cited barrier to implementation was time, cited by both IRI and IMI grantees. Technology and technical assistance from programs providers were also seen by 10% or more of grantees as barriers.
- Professional development/technical assistance sessions related to pre-launch planning and using data to inform instruction were the session topics reported as offered by the largest percentages of IRI and IMI grantees. For IRI and IMI programs, most professional development/technical assistance sessions were offered only one time over the course of the grant.
- The majority of IRI (59%) and IMI (56%) students participated in grant activities for two semesters (most commonly Fall 2006 and Spring 2007). An additional 23% of IRI and 19% of IMI students participated for only one semester (most commonly Spring 2007). By TAKS 2007, the majority of IRI (76%) and IMI (80%) students had participated in at least one semester of grant activities (considered to be moderate level of exposure; the rest of the students were considered to have had little/no level of exposure). By TAKS 2008, the majority of IRI (76%) and IMI (81%) students had participated in two or more semesters of grant activities (considered to be a moderate level of exposure versus only one semester which was considered a mild level of exposure).

TAKS Pass/Fail Performance Patterns of IRI and IMI Participating Students

- The most common pattern of TAKS first administration pass/fail performance from 2006 to 2008 among both IRI (44%) and IMI (41%) students was to pass TAKS in all three years. Within IRI, 13% of all

participating students failed TAKS first administration all three years and of those students who entered IRI having failed TAKS first administration 2006 reading, 34% continued to fail over the next two years. Results suggest IMI was less effective than IRI, with 22% of all IMI students failing TAKS first administration mathematics all three years. Of the IMI students who entered IMI having failed TAKS first administration 2006 mathematics, 51% continued to fail over the next two years. These findings suggest that IRI and IMI were somewhat successful at preventing future TAKS failure among students who entered having passed TAKS 2006 but was less successful with those students who entered having already failed.

- Some IRI (18%) and IMI (15%) participating students who entered IRI/IMI having passed TAKS 2006 went on to fail TAKS first administration in one or both of the following years (an unsuccessful outcome²). This suggests that these students were appropriately identified as struggling, but were not helped sufficiently by their IRI/IMI participation to enable them to pass TAKS first administration in both of the following years.
- 25% of all IRI and 21% of all IMI participating students failed TAKS first administration 2006 and then passed TAKS first administration in at least one of the following two years, a successful outcome.
- Finally, among just the IRI students who entered having failed TAKS first administration 2006, 66% had at least one year of successful TAKS performance. This was the case for only 49% of IMI students who entered having failed TAKS 2006.

² Unsuccessful here refers to failing a TAKS first administration. It is likely that some of these students did pass a later administration of TAKS.

Effects of IRI and IMI on Student TAKS Performance³

- Two general trends were observed in the TAKS reading and mathematics scores of participating students. Generally, students' scores improved by about one-tenth of a standard deviation (about 20 points) from 2006 to 2007 and by about three-tenths of a standard deviation (about 60 points) from 2006 to 2008. In addition, students who entered IRI/IMI having passed TAKS 2006 continued to outperform students who entered having failed TAKS 2006.
- In the short term (from 2006 to 2007), both IRI and IMI students who had participated at moderate levels of exposure prior to TAKS 2007 generally scored significantly higher than students who had little/no exposure suggesting that IRI/IMI participation was significantly contributing to the change in performance. However, this trend was stronger among students who had passed TAKS 2006.
- For TAKS 2007 reading, the trend was reversed for students identified as White who had failed TAKS 2006 reading (little/no exposure students scored significantly higher than students with moderate levels of exposure). For TAKS 2007 mathematics, the trend was similarly reversed for students identified as Hispanic.
- By TAKS 2008 (long term), the connection between IRI/IMI level of exposure and TAKS outcomes was generally no longer apparent. The only group to show higher performance linked to moderate levels of exposure (versus mild levels of exposure) was for students identified as Hispanic who had passed TAKS 2006 reading.

³ All TAKS scores discussed in this section are from TAKS first administrations.

- Together these findings suggest that IRI and IMI may not have been as successful at helping students with a prior failing record as hoped, although IRI was somewhat more successful than IMI in this regard.

Retention and Promotion among IRI and IMI Participants

- Among participating students in Grades 4–7, 89% to 93% were promoted to the next grade level after participating in IRI for one year.
- Among participating students in Grades 4–7, 2% to 6% were retained in the same grade level after participating in IRI for one year. This retention rate was higher than the state average (2%) particularly for Grades 4 and 5.
- Among participating students in Grades 4–7, 90% to 95% were promoted to the next grade level after participating in IMI for one year.
- Among participating students in Grade 4–7, 1% to 5% were retained in the same grade level after participating in IMI for one year. This retention rate was again higher than the state average (2%) particularly for Grades 4 and 5.

The cover art titled ***Everyone Can Learn*** by **Rita Yeung**, from Garland High School in the Garland Independent School District, was included in the 2007-2008 Texas PTA Reflections art exhibit. The exhibit featured award-winning pieces displayed at the Texas Education Agency, the Texas Commission on the Arts, and the Legislative Budget Board from April 21 through August 29, 2008.

