FINAL EVALUATION OF THE 2003-2004
READING IMPROVEMENT PROGRAM
GRADES 7-9

REIS04-157-2

DIVISION OF EVALUATION
AND ACCOUNTABILITY

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Abstract

- Reading Improvement courses were offered at Grades 7-9 for students scoring below the 40th percentile on Iowa Tests of Basic Skills (ITBS) reading comprehension. At Grades 7 and 8, these courses were Reading Mastery using Corrective Reading (recommended for students scoring at the 1st-25th percentile) and Reading Mastery using Read XL (26th-39th percentile). Reading 7 or 8 was an elective course required for students scoring above the 40th percentile on ITBS reading comprehension. Corrective Reading (1st-25th percentile), Reading I (26th-39th percentile), and Read 180 (1st-25th percentile) were the Reading Improvement courses for Grade 9.

The Reading Improvement Program (Grades 7-9): 2003-04 report showed the following major results:

- Approximately 48% (N = 16,809) of Grades 7-9 students were eligible for Reading Improvement. About 18% of those eligible were not served in any reading program during the year, while ineligible students were enrolled in the program.

- Fewer students used Corrective Reading (43%, 40% and 23% of Grades 7-9, respectively) than Read XL (55% and 60% of Grades 7-8, respectively) or Reading I (67% of Grade 9). Ten percent of Grade 9 students used Read 180.

- Many schools did not place students in the appropriate district-recommended Reading Improvement courses. About 27% of Grades 7 and 8 students were correctly placed in Reading Mastery using Read XL. Most of the misplaced students had pretest scores below the 26th percentile. Many Grade 9 students (59%) enrolled in Reading I were recommended for Corrective Reading.

- Observations of the five Reading courses showed that differences in instructional activities were due more to teacher than program variation. Use of materials other than those recommended suggested a lack of fidelity to the program. The most important difference in teacher-student activities among the five programs was the amount of time spent at various thinking levels, where Reading Improvement classes spent 55% of the time at Level 1 thinking. In contrast, Reading 8 classes spent 26% of their time at Level 3.

- In Grades 7 and 8, eligible students in Reading had higher mean adjusted Normal Curve Equivalent (NCE) scores than eligible students not in a reading class or in Reading Improvement.

- For ITBS analyses, ineligible students who pretested above the 40th percentile, but were enrolled in Reading Improvement, had lower mean adjusted NCE scores than all eligible or ineligible students enrolled in Reading 7 or 8 or no reading class.

- There were no significant differences in mean adjusted NCE scores between (a) Grade 7 in any Reading Mastery class, or (b) Grade 9 students in Corrective Reading, Reading I or Read 180. Grade 8 students using Read XL had greater NCE gains than those using Corrective Reading.
• At Grades 7 and 8, a greater percentage of eligible students enrolled in Reading passed the reading portion of the TAKS than those enrolled in Reading Mastery or not enrolled in any reading class. Differences were less evident at Grade 9, where eligible students enrolled in Read 180 or no reading class had slightly higher passing rates than students in Corrective Reading or Reading I.

• For ITBS results, ethnicity was a valid predictor of academic progress at Grades 7-9, where White students had significantly higher mean adjusted NCE scores than Hispanic and African American students. For TAKS results, the passing rates varied mostly by reading class participation and eligibility for Reading Improvement services, regardless of ethnicity.

Program Description

In a 1984 amendment, the Court ordered programmatic remedies to minimize differences in achievement among minority students and their White counterparts in the Dallas Independent School District (DISD). These remedies were designed to supplement and/or strengthen the educational program for ethnic minority students. The Reading Improvement program was presented to the Court as a programmatic remedy designed to improve the reading achievement of low-performing students, as measured by a norm-referenced test, to a level that would contribute to narrowing the academic performance differences between White and non-White students, specifically African Americans. The program was directed toward removing the reading deficiencies of Grades 7-9 students scoring below the 40th percentile in reading comprehension on the districtwide norm-referenced test (Iowa Tests of Basic Skills for 2004).

Reading Improvement consisted of supplemental instruction delivered in the form of grade-specific one-year courses. Eligible students were required to take a Reading Improvement course in addition to the State-required English Language Arts courses. Reading Improvement courses were to have a teacher-pupil ratio of 1:20, a reduced class size compared to traditional classes. For each grade, there were a variety of Reading Improvement programs offered. In Grades 7 and 8, two reading programs were offered: Corrective Reading for students who scored below the 25th percentile and Read XL for those scoring between the 25th and 39th percentile. Corrective Reading was also available at Grade 9. Nine high schools used Read 180, a computer-based intervention program for students scoring below the 25th percentile.

Grades 7 and 8 students who scored above the 40th percentile in reading comprehension on the spring 2002 Stanford 9 were required to take Reading 7 or Reading 8.
McDougal Littell’s *InterActive Reader* was provided as the State-adopted textbook for these courses. There were no required reading courses for Grade 9 students.

**PURPOSE AND SCOPE OF THE EVALUATION**

The purpose of the evaluation was threefold: (a) to describe the districtwide Reading Improvement program and services provided, (b) to compare instruction in Reading Improvement and Reading classes, and (c) to assess the impact of the program on students’ reading achievement after receiving services.

The first part of the evaluation, which described the program and services, covered curriculum, class size, and more extensively, an account of which students were served or not, according to eligibility criteria and program standards. In part two of the evaluation, data obtained from classroom observations allowed for (a) a comparison of the reading activities in which students were engaged during Reading Improvement and Reading courses and (b) an assessment of the implementation of the recommended programs and materials. The third part of the evaluation, which focused on the impact of Reading Improvement on student achievement, relied on posttest scores on the norm-referenced test, the *Iowa Tests of Basic Skills* (*ITBS*). Other indicators of program outcomes were passing rates on the *Texas Assessment of Knowledge and Skills* (*TAKS*), *Assessment of Course Performance* (*ACP*) and Reading Improvement courses. The analyses were conducted separately for each grade given the large variation in performance across grades.

The effects of three main factors were analyzed in relation to achievement: eligibility, reading course participation, and ethnicity. Multiple regression and analyses of variance (ANOVAs) procedures were used to assess the effects of eligibility, ethnicity, and reading course enrollment status on the reading achievement of students after removing the effects of pretest scores and other individual and economic factors.
MAJOR EVALUATION QUESTIONS AND RESULTS

2.1 What was the context of Reading Improvement?

Methodology

Context data were obtained from interviews with the program manager and a review of documents describing the Reading Improvement program. Materials related to the instructional programs used in Reading and Reading Improvement courses were also reviewed. The program relied on the following three components to achieve its goal: (a) a curriculum that supported targeted instruction and that aligned with local, State, and national objectives, (b) a reduced teacher-student ratio (1:20), and (c) teachers with specialized certification in reading. The first component will be discussed in this section, the last two in the next section.

Results

In Grades 7 and 8 Reading Mastery (the Reading Improvement course name), two reading programs were offered: Corrective Reading for students who scored below the 25th percentile and Read XL for those scoring between the 25th and 39th percentile. In Reading I (the Grade 9 Reading Improvement course), Corrective Reading was also an option. Nine high schools used Read 180, a computer-based intervention program for students scoring below the 25th percentile. Reading II and III were offered for Grades 9-12 students who had not passed the Texas Assessment of Academic Skills (TAAS) but will not be included in this section of the report.

CORRECTIVE READING

Corrective Reading is a complete program that uses the Direct Instruction method to help students master decoding and comprehension skills. There are four levels each of a decoding program and a comprehension program. Schools in the district used only the decoding portion of the program.

According to the Corrective Reading Series Guide (Engelmann, Haner & Johnson, 1999), the decoding programs “help students who have trouble identifying words, who don’t understand how the arrangement of letters in a word relates to its pronunciation, and whose reading rate is inadequate” (p. 10). An individually administered placement test is provided. The Decoding Placement Test measures students’ decoding accuracy and rate of oral reading. Placement in
the appropriate level of the program depends upon the number of errors that students make while reading and the time it takes them to read the selection. Three selections on the test are part of a story; one selection is a series of unrelated sentences. No comprehension questions are asked of students because comprehension is not the focus of the decoding program. A brief description of each level of the decoding program can be found in Table 1.

Table 1

Levels of *Corrective Reading* Decoding Program with Description of Reader, Skills Taught, and Outcomes

<table>
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<th>Level</th>
<th>Type of Reader</th>
<th>Skills Taught</th>
<th>Outcomes</th>
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<td>Level A</td>
<td>Nonreaders or those who read so haltingly they cannot understand what they read</td>
<td>Words attack skills: Phonemic awareness, sound-symbol identification, sounding out, regular and irregular words, sentence reading</td>
<td>Reading at 60 wpm, 98% accuracy, reading at about a 2.5 grade level</td>
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| Levels B1 & B2 | Poor readers who do not read at an adequate rate and who confuse words | Decoding strategies: letter and word discrimination, sound and letter combinations, word endings, story reading, literal and inferential comprehension | B1: 90 wpm, 98% accuracy, reading at about a 3.9 grade level  
B2: 120 wpm, 98% accuracy, reading at about a 4.9 grade level |
| Level C | Fair readers who have trouble with multisyllabic words and typical textbook material | Skill applications: additional sound combinations, affixes, vocabulary development, reading expository text, recall of events, sequencing, and building reading rate | Over 150 wpm, reading at about a 7.0 grade level |

Note. Information was adapted from *Corrective Reading Series Guide* (Engelmann et al., 1999). “wpm” = words per minute.

Each program contains all needed materials, including a Teacher’s Guide, a Teacher Presentation Book, non-consumable student textbooks (except Level A), consumable student workbooks, and supplemental mastery tests. The Teacher Presentation Book contains a script for each lesson, specifying what the teacher is to say and appropriate student responses. Lessons are scripted so that (a) uniform wording is used, (b) examples are presented in a manner that communicates effectively with students, and (c) a lesson can be completed during a class period. Each daily lesson is designed for a 35-45 minute class period, including both teacher-directed work and independent student work. Students who begin at Level A or Level B1 should complete that level and the next in a school year. Students beginning at Level B2 should
complete B2 and most of Level C, and students beginning at Level C should complete C and additional outside reading in a school year.

Teaching Techniques

Scripted presentations. The series control all details in a lesson: (a) the sequence of tasks that constitute the lesson, (b) the number and type of examples practiced, and (c) the precise steps in the development of each skill. What the teacher says and how the teacher corrects mistakes are specified. The *Corrective Reading Series Guide* (Engelmann et al., 1999) states that scripted presentations have the following advantages:

- Scripted directions allow teachers to present a number of examples quickly. Some teachers might present wordy explanations that do not permit the time to present many examples.
- Scripted directions standardize the wording from example to example so that students will not be confused by varying instructions.
- Teacher training is simplified because trainers can work on common presentation problems.
- Scripts provide efficient correction procedures that contain few words and build on what the students have already been taught.
- The time spent on each activity is controlled; therefore, a more effective development of a range of skills is guaranteed.

Pacing the exercises. The Teacher’s Guide and all training materials stress that the teacher must become familiar with the exercises before presenting them. The teacher should be able to present them without having to refer to the page for every word. Lesson formats are very similar so that students and teachers know what is going to occur. Pacing is important because it (a) reduces classroom management problems and maintains on-task behavior, (b) results in greater student achievement, and (c) reduces the memory load by giving students less time to forget (Engelmann et al., 1999).

Signals. When tasks calling for a group answer are presented, the entire group should respond on signal. This allows teachers to listen to everyone in the class and evaluate the performance of each student. The three most used signals are (a) the Hand-Drop Signal, used for tasks that are presented orally, (b) the Audible Signal, used when students are attending to material in the text or workbook and not looking at the teacher, and (c) the Point-Touch Signal, used when pointing to words or symbols in the presentation book or on the chalkboard. Typical
audible signals include finger snapping, clapping, or foot tapping. The rules for effective signaling follow:

- The teacher should never signal while talking. Talk first, and then signal.
- The time interval between the last word of the instructions and the signal should always be about one second. This allows students to think first, then answer chorally.

**Corrections.** Corrections are not meant as punishment and should be directed to the entire group, not singling out the student who made the mistake. Corrections should be seen as just another step in the lesson. Students should not be told, “No, that’s wrong” and then be told the correct answer. The general correction procedure involves five steps.

1. **Say the answer.** The teacher should say the answer immediately upon hearing an incorrect response.
2. **Repeat the task.** When the task is repeated, the instructions given first are repeated, then the correct response. Students should not just repeat the correct answer, but respond to the task given.
3. **Back up in the exercise and present the steps in order.** The purpose of going back in the exercise is to make sure that students can remember the answer to the task that was just corrected. The correction procedure is effective because it ensures that the student is able to respond to the task or specific detail that was missed within the context in which the mistake originally occurred.
4. **Finish the remaining steps in the exercise.**
5. **Repeat the exercise if students made more than one or two mistakes.**

**Teaching to low performers.** If students have been grouped appropriately based on their placement test, the performance of students in a particular group should not be markedly different. However, teachers are cautioned to repeat tasks until even the lower performing students are firm.

**Use of points.** Students can earn points for low errors and summarize their progress on a chart in the workbook. Not all schools in the district chose to use points.

**Lesson Parts**

There are four lesson parts at every level except A, which only has three: (a) word-attack exercises, (b) group reading activities (not in Level A), (c) individual reading checkouts, and (d) workbook activities.

**Word attack.** Word attack activities may be done on the board or overhead, from the textbook, or in the workbook. At the board, the focus is often reading a word, then replacing a
beginning consonant, an internal vowel, ending consonant, suffix or prefix, and reading the word again. From the text, students may say the underlined sound of a word, then the word, or read a list of irregular words that may be found in the story. Some workbook lessons call for the teacher to dictate a sound, letter combination or word that students must write.

**Group reading activities.** Group reading involves asking a student to read the title and then individual students to read one or two sentences. All word-reading errors are corrected using the correction procedures. After reading several paragraphs, the teacher stops and asks comprehension questions to which the answers come directly from the story. During this question-answer period, students look at the teacher and answer in unison, not looking back in the story for the answer.

**Individual reading checkouts.** Oral reading checkouts occur daily or every other day. Paired students read to each other for a specified amount of time. While one student is reading, the other student keeps track of the errors made. In this way, students can monitor their own errors and word-per-minute rates.

**Workbook activities.** There are one or two workbook pages to accompany every lesson. The activities may involve writing answers to comprehension questions, practicing word attack skills, matching words to word parts, copying sentences, sequencing story events, or vocabulary.

**READ XL**

*Read XL*, published by Scholastic, was designed for “the older struggling reader who is one to three years below grade level. *Read XL* is based on a model of teaching and learning that anticipates and addresses the problems of struggling readers as it scaffolds instruction to meet their needs” (*Read XL*, Grade 7, Teacher’s Guide, p. 5). The high-interest text is increasingly demanding, beginning approximately three years below grade level and progressing developmentally to grade-level difficulty. Over 60% of the anthologies are made up of expository text, and a study skills section reinforces content area learning strategies.

The *Read XL* daily schedule is flexible for use with the traditional 50-minute or 90-minute block schedule. About two-thirds of the class is spent in instructional reading and the rest in independent reading. Each story’s lesson plan covers skills such as using graphic organizers,
understanding text structure or genre, vocabulary, word study, comprehension, fluency, study and research skills and reading real-world text. There is a student workbook that accompanies the series.

READ 180

Read 180, a technology-based reading intervention, was designed by Vanderbilt University researchers for adolescent students reading below grade level. Scholastic, Inc. markets the program, which includes thematic CDs, audiobooks, paperbacks, teacher resources, and program software. The program design incorporates balanced instruction through teacher-directed whole- and small-group instruction, independent instruction at the computer, and independent or modeled reading. The district implemented the program in spring 2000 in 8 schools as part of the Ninth Grade Initiative to improve reading achievement among students scoring below the 25th percentile in reading comprehension on norm-referenced tests. For the 2002-03 school year, Read 180 was used in 12 schools.

The Read 180 instructional model was designed to build essential skills through a balance of instructional practices. The program combines software, literature, and literacy research to “help students break out of the failure cycle and become confident, successful readers” (Hasselbring, 1999, p. 7). Scholastic listed three goals of Read 180:

1. Deliver individualized, adjusted reading instruction to move students to grade level.
2. Provide practice and application of skills in multiple contexts to increase achievement.
3. Support and motivate students as they progress toward becoming lifelong readers and learners.

The research that led to developing the software that is now Read 180 identified areas of deficiencies in older students with limited reading skills. These students had an inability to form mental models and visual images due to a lack of vocabulary and background knowledge. Video segments contained in CDs for computer instruction serve to provide images and form mental models. Lack of decoding skills and reading fluency are addressed with interactive software that models segmentation and blending of words. Research also identified low motivation and inability to relate to text as deficiencies in struggling older readers. This problem was solved
using age-appropriate content in innovative ways. Through a planned sequence of activities, the software instructional activities cover essential skills: decoding, word recognition, reading fluency, comprehension of text, vocabulary, and spelling.

Implementation of the program required specific materials. The school had to provide computers, a server, headphones, microphones, and tape players for up to 7 students to use simultaneously. Scholastic supplied 12-13 crates of Read 180 materials per lab or classroom. Each crate contained 5 copies of 9 thematic CD, each with 4 video segments at 4 reading levels; 5 copies of 10 paperback titles for each of 4 reading levels, and 4 copies of 12 audiobook titles with accompanying paperbacks.

Teachers also received a software manual, posters, a welcome video, as well as teaching and assessment resources: Teacher’s Guide (instructional support and implementation help), Teacher’s Resource Book and Read 180 Reading Strategies (skill lessons). They could use these for planning instruction around the content of Read 180 materials or for classroom activities. The Scholastic Management Suite, a network system installed on the classroom server, allows teachers to manage and create reports of student progress and alerts about areas needing support. The package also included the Scholastic Reading Inventory, software used to determine student placement according to a lexile score, and Reading Counts!, software with book quizzes for all Read 180 titles.

Read 180 Design and Components

The Read 180 program was intended to be 90 minutes long and take place 5 days a week. The class time should be divided into 3 periods: 20 minutes of whole-group instruction, 60 minutes rotating through 3 components (20 minutes in each rotation), and 10 minutes of whole-group wrap-up. The class, which should not have more than 21 students, is divided in 3 groups for the rotation period. Students rotate through small-group instruction, instructional reading at the computer, and independent or modeled reading.

Whole-group activities are not prescribed. It is the teacher’s discretion to plan for activities during this period. Suggested activities include shared and guided reading and minilessons for skill instruction. Similarly, small-group instruction does not have a set of
prescribed activities. Suggested activities include those already mentioned, with stronger emphasis on providing individualized skill instruction. Teachers could also reinforce instruction during the computer rotation.

The reading rotation has two alternatives, independent or modeled reading. In the first one, students choose a paperback to read according to their level. In the second one, students choose an audiobook, which models fluent reading and strategies used by good readers. The narration in the audiobooks includes pauses in which a reading coach intervenes. The coach models comprehension, vocabulary, and self-monitoring strategies. It was suggested that rooms have a comfortable seating area designated for reading and fitted with furniture that create an inviting atmosphere.

The instructional reading rotation provides students with individualized instruction through software that adjusts to the student’s needs. The multimedia application is interactive. Students should use headphones and microphones in this rotation. The announcer on the CD gives instructions and immediate feedback on performance, including encouragement and praise. Students at Level One have to go through the nine CDs in sequential order. Other students could pick any CD in the series. The software takes students through four zones: Reading, Word, Spelling, and Success. After completing a zone, students receive a progress summary on the screen. Segments on the CD emphasize specific comprehension and word study skills (e.g., cause and effect, summarization, suffix -est).

The Reading Zone shows a video and a passage. Each of the four segments on the CD starts with a brief video that anchors all the instruction in the segment as the student moves through the zones. After the video, students read a passage at one of four levels. The student’s score on the Scholastic Reading Inventory (SRI) determines the level at which the material is presented. The teacher stores SRI scores in the student’s profile on the server. Students can choose the speed at which the software announcer reads the passage. They can also make an audio recording of their reading, or read along with the announcer, either a word or a phrase at a time. Finally, there is a check of comprehension and vocabulary through multiple-choice questions.
The Word Zone provides practice in decoding and rapid recognition of words presented in the passage. The student hears words and identifies them on a list. Words not identified quickly or accurately make up the study words the software prepares for the student. The zone provides visual and audio tips on how to decode the study words. Students make their own audio recording of these words, which they can hear and match to a list of words or compare with an announcer’s reading. Through this process, students check their accuracy. If the software identifies that the student needs further practice, a review session is added to the steps described above. This process also allowed teachers to listen to students reading their study words. Achieving mastery of words for a particular segment permits completion of this zone.

In the Spelling Zone, students hear words and have to spell (type) them. Words that are not spelled correctly make up the study words for the zone. Students will have to identify them on a list after hearing the announcer read a word, proofread sentences with misspellings, and choose correct spellings from a list. Mastery of the segment’s Spelling Zone is achieved by correctly spelling a minimum of 6 to 12 new study words, depending on the student’s level.

Students can go to the Success Zone only after mastering the other ones. This zone focuses on comprehension. Students identify true or false statements in a modified version of the original passage read at the beginning of the CD segment and work on cloze passages (i.e., fill in blanks using context clues). To move to a new segment, students make a final audio recording of the passage.

2.2 How was Reading Improvement implemented?

Methodology

Implementation of Reading Improvement in the district was evaluated in terms of whether the program served its target population, the qualifications of the teachers providing the service, and the extent to which the current number of classes and teachers were proportionate to the number of students needing services. Classroom observations described both qualitatively and quantitatively the implementation of the various secondary reading programs used in the district.

Eligibility for Reading Improvement
Reading Improvement courses were designed to serve students if they (a) were in Grades 7-9, (b) scored below the 40th percentile in reading comprehension on the spring 2003 ITBS, and (c) were proficient in English or classified as bilingual program level “Advanced,” “Transitional,” or “Post-Transitional.” For students with no previous score on the ITBS, the Gates-MacGinitie Reading Tests or the Corrective Reading placement test could be used to determine eligibility. However, students were to meet the grade and bilingual program criteria. Schools were required to serve eligible students by enrolling them in a Reading Improvement course in lieu of an elective. Students who met eligibility criteria should have higher priority over ineligible students when scheduling for Reading Improvement. School counselors used a student roster containing spring 2002 ITBS test results to preliminarily schedule students in Reading Improvement courses for the 2003-04 school year. Rosters containing the most recent test score results were sent to schools to ensure accurate placement of students in the program.

Characteristics of Students Eligible for and Served in the Program

Student databases. A file containing all students enrolled in the various Reading and Reading Improvement courses in the district as of March 10, 2004, was matched with a file containing final grades for first semester reading courses. Demographic and spring 2003 ITBS data for all students in Grades 7-9 were extracted from student databases. The following were determined: (a) the number and demographic characteristics of eligible students, (b) courses in which eligible and ineligible students were enrolled, and (c) the number of ineligible students served according to ineligibility criteria. Students who were enrolled in the district for only one semester were excluded from the analyses.

Rosters. In November 2004, three sets of rosters were sent to each school offering Reading and Reading Improvement courses. Schools reported different information on each roster. Rosters and requested information were:

(1) A list of students with no spring 2003 ITBS reading comprehension score, yet were enrolled in Reading Improvement courses. The required information was regarding what was used to determine eligibility for enrollment in Reading Improvement. Choices were the Gates-MacGinitie Reading Tests and the obtained percentile score, the Corrective Reading placement test and the assigned Corrective Reading program level, or other criteria.
(2) A list of students that met eligibility requirements for Reading Improvement courses, but were not enrolled in any Reading course at that time. The required information was regarding why these students had not been placed in a Reading Improvement course. Choices were (a) already has Reading Improvement credit, (b) scheduling problems, (c) parent request, (d) behavior problems, and (e) other.

(3) A list of students that did not meet eligibility requirements for Reading Improvement courses, yet were enrolled in a Reading Improvement course. The required information was regarding why these students had been placed in a Reading Improvement course. Choices were (a) already has Reading credit, (b) scheduling problems, (c) parent request, (d) behavior problems, and (e) other.

Principals assigned teachers or counselors to complete the rosters and return them to Program Evaluation. To refine the evaluation process, data were analyzed to identify (a) how schools determined the eligibility of scoreless students, (b) criteria for inappropriate placement of students in Reading courses, and (c) final eligibility of students used for the Reading Improvement program evaluation.

**Characteristics and Qualifications of Reading Improvement Teachers**

In order to identify Reading Improvement teachers, a data file was constructed with course information, including teacher name and number. Teacher information was combined with personnel data files containing teachers’ position, experience, and education.

**Class Size and Number of Sections**

According to the Reading Improvement Planning Guide, the teacher-pupil ratio in Reading Improvement courses should be 1:20 to maximize teacher interaction with each pupil and the opportunity for individualizing instruction. Using the student course file described above, the number of students per course section in each school was computed. Similarly, the number of Reading Improvement teachers per campus and the number of sections taught were computed using the same data.

**Implementation of Reading and Reading Improvement Courses**

Development of the observation instrument. Since the 1994-95 school year, Research and Evaluation has conducted classroom observations in reading classes. Each year the observation instrument has undergone changes and revisions to reflect the needs of evaluators and to improve upon the process. The observation form was altered significantly in 1998 and underwent minor revisions in 1999 and 2000 to produce an instrument that would yield more valid
and reliable results. The 2002-03 Reading and Language Arts Observation Form (found in Appendix A) was used to assess implementation of the various reading programs.

The observation instrument. The instrument is composed of three sections: (a) identification information, (b) classroom rating scales, and (c) the observation record. In this way, both a quantitative and qualitative approach was used to describe reading classrooms. The identification information included the school, teacher, grade and advisor number, and the number of students observed. When an observation was completed, observers rated the class using scales describing (a) student engagement, (b) classroom management, and (c) teacher factors. A 5-point scale used 1 = “Very Little Like This Classroom to 5 = “Very Much Like This Classroom” as descriptors. For some items, the observer had the option of choosing “Did Not Occur.”

Five pieces of information were recorded on the Observation Record: (a) time points for each instructional event, (b) the elapsed time between events, (c) the type of activity, (d) the thinking level of each activity, and (e) descriptive notes regarding teacher-student interaction. Activities coded by observers were (a) reading, when the main activity involved extracting meaning from text, (b) writing, when the main activity involved encoding information in writing, (c) listening and speaking, when students were actively listening and responding to the teacher, (d) nonacademic, when the activity served as a filler between activities or had no academic content, and (e) transition, when the teacher and students were finishing one activity and preparing to begin another.

For each academic activity, observers judged the thinking level, defined as an index of the mental elaboration required of students during class as they completed the instructional activities that the teacher presented. Bloom’s taxonomy (Bloom, 1956) was used to create a 4-level scale (Figure 1).

Sampling design for observations. Initially, 10 teachers each from 5 different reading programs were randomly selected to include as many different schools as possible in the observation sample. The programs and grade levels were (a) Corrective Reading B2 (Grade 7),
(b) Reading Mastery (Grade 8), (c) Read 180 (Grade 9), (d) Reading I (Grade 9) and (e) Reading (Grade 7 or 8).

**Training for observers.** Observers used the 2003-04 Reading and Language Arts Observer’s Manual (Dallas Independent School District, 2003). All observers were experienced; therefore, no further training was conducted.

**Coding observation forms.** Observations were coded in multiple ways to gather implementation data of various types. To gather specific information relative to the amounts of time spent in various reading activities at various thinking levels, observation forms were coded into specific instructional events by reading evaluators. A list of the coded behaviors and a description of each is presented in Appendix B. These events were often grouped into nine activity categories for analyses. See Figure 2 for a list of observable instructional events and their corresponding activity.

**Analyzing coded information.** Coded information was entered into SPSS™, one line of data per instructional event. A file transformation procedure transformed the data into one line of data per observation, with the amount of time spent in an activity and the various thinking levels calculated as a rate of occurrence.

**Data analysis by reading program.** Multivariate analyses of variance (MANOVAs) were used to statistically compare mean ratings for the programs on student engagement, classroom management and teacher factors rating scales. When differences were statistically significant, effect size, indicating the proportion of the variance in mean differences that could be attributed to the program, was measured with partial eta-squared ($\eta_p^2$). Post hoc tests were used to determine among which programs differences were significant.

Similarly, MANOVAs assessed differences in the amounts of time spent in various reading and language arts activities for the reading programs. Percents of time spent in the nine reading and language arts activities and the four thinking levels were the dependent variables. In each section, the most significant findings will be discussed in text and displayed in figures.
<table>
<thead>
<tr>
<th>Thinking Level</th>
<th>Meaning Verbs</th>
<th>Questions/Comments</th>
</tr>
</thead>
</table>
| **1. Knowledge** | Remembering and recalling information: know, repeat, name, recount, list, record, define, memorize, describe, identify, recall, show, state, indicate, tell, etc. | - What? When? Who(m)? How many…?  
- What’s the character’s name?  
- What is meant by…?  
- What do you know about…? |
| **2. Comprehension** | Understanding the meaning of the information being learned: translate, summarize, recognize, describe, explain, locate, report, discuss, review, change, rearrange, restate, express, etc. | - Tell me in your own words how…  
- What does the writer mean by…?  
- Which of these are the most alike?  
- What conclusions can be drawn from the graph/story?  
- How much has it increased? |
| **3. Application/Analysis** | Using learned materials in a new way: demonstrate, apply, illustrate, solve, simulate, experiment, interview, practice, discriminate, describe, etc. | - What do we need to plan to do this?  
- Describe an experience you had similar to what happened in the story?  
- What makes this similar/different?  
- What was the author’s reason for writing the story?  
- Discuss the statement…  
- How would you support your conclusions? |
| **4. Synthesis/Evaluation** | Combining previous experience with new material to form a whole structure: create, design, predict, formulate, incorporate, generalize, produce, plan, propose, solve, etc. | - Write an essay defending the need to…  
- What other ending can you think of for the story?  
- If John hadn’t…, what might have happened?  
- What do you think he should have done in this situation? Why?  
- What did you think of in the story?  
- Do you agree with the writer’s opinion? |

Figure 1. Bloom’s taxonomy–thinking levels in the cognitive domain.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Observable Instructional Events</th>
</tr>
</thead>
</table>
| **Reading**       | • Teacher introduces a book or conducts a Story Walk  
• Teacher reading aloud, (a) uninterrupted or (b) with questions or comments  
• Students reading aloud, (a) with questions or explanations, (b) with other students listening or (c) to themselves  
• Students choral reading, (a) uninterrupted or (b) with questions or comments  
• Comprehension questions, (a) oral or (b) short answer  
• Discussion of (a) unfamiliar words or concepts or (b) lesson content  
• One-on-one reading with teacher  
• Student silent reading from (a) free choice of materials or (b) assigned materials  
• Teacher monitored, student silent reading (not in a reading group)  
• Skills instruction based on text  
• Reading/language arts game |
| **Phonics**       | • Phonemic awareness activities  
• Word blending  
• Individual word reading  
• Group word reading |
| **Writing**       | • Shared writing  
• Interactive writing  
• Word writing  
• Sentence writing  
• One-on-one and group writing skill instruction  
• Students read aloud from own writing (completed or in progress)  
• Independent writing  
• Organizing information in writing |
| **Listening and Speaking** | • Teacher introduces content  
• Teacher develops content (lecturing, demonstrating, explaining, modeling)  
• Teacher reviews previously introduced content  
• Students organize information orally (e.g., story or word maps, webbing, charts)  
• Checking and grading assignments with instruction included  
• Reading-related singing  
• Planned student presentation (e.g., reciting poems, demonstrating definitions, reading reports) |
| **Seatwork**      | • Word copying (word banks, vocabulary, spelling lists)  
• Sentence copying, sentence writing  
• Independent seatwork or group seatwork, including workbook  
• Proofing (spelling, capitalization, punctuation) |
| **Other Activities** | • Independent Work Time or Center activities  
• Directions for homework or assignments  
• Checking, grading (going over students' work, responses to a previous activity)  
• Test (teacher gives students a test or quiz) |
| **Test Practice** | • ITBS/TAKS practice (lesson focuses exclusively or almost exclusively on test content and test-taking skills) |
| **Nonacademic**   | • Nonacademic activities (fillers between other activities with no noticeable academic content) |
| **Transition**    | • Transition (periods of time that it takes the teacher and students to finish one activity and start another) |

Figure 2. Instructional events included in the nine categories of activities.
Results

Eligibility and Enrollment in Reading Improvement

Each year many students without standardized test scores from the previous year are placed in Reading Improvement courses. The Reading Department provided the Gates-MacGinité Reading Tests to middle and high schools to determine a reading percentile rank for new students without scores. Likewise, the Corrective Reading placement test could be used. There were 1,426 students (11%) with no 2003 ITBS reading comprehension percentile score enrolled in both semesters of a Grades 7-9 Reading Improvement course.

Of the 40 schools that returned student rosters (83% of the total middle and high schools offering Reading and Reading Improvement courses), 3 schools (8%) reported Gates-MacGinité scores and 21 (53%) reported Corrective Reading program placement scores (Table 2). Schools offered other criteria by which scoreless students were placed in Reading Improvement, many of which were well meaning, but unacceptable according to program guidelines. Some schools listed placement in or testing out of a Reading Improvement course as the criteria for placement in a Reading Improvement course. Bilingual program status also seemed to be a source of confusion because it was listed 20 times as criteria for placement, when actually the students were ineligible because their bilingual program level was “Beginner” or “Intermediate.”

In total, there were documented criteria for only half (54%) of the scoreless students enrolled in Reading Improvement. With the caveat that there were more students tested than results reported, for the purpose of this portion of the evaluation (Question 2.2), students without acceptable placement criteria will be deemed ineligible.
Table 2

Criteria by Which Students without a Spring 2003 ITBS Reading Comprehension Score Were Placed in Reading Improvement Courses

<table>
<thead>
<tr>
<th>Criteria for Placement</th>
<th>Number of Students</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acceptable Criteria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrective Reading Placement Test</td>
<td>343</td>
<td>24</td>
</tr>
<tr>
<td>2002 standardized test scores&lt;sup&gt;a&lt;/sup&gt;</td>
<td>62</td>
<td>4</td>
</tr>
<tr>
<td>Scholastic Reading Index</td>
<td>58</td>
<td>4</td>
</tr>
<tr>
<td>ARD decision (for special education students)</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>Did not pass TAKS</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Gates-MacGinite Reading Tests</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>Parent request</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>2001 or before standardized test scores&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Teacher recommendation</td>
<td>3</td>
<td>&gt;1</td>
</tr>
<tr>
<td>LPAC (for ESL students)</td>
<td>3</td>
<td>&gt;1</td>
</tr>
<tr>
<td><strong>Unacceptable Criteria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is enrolled in Reading Mastery, Read 180 or Reading &lt;sup&gt;c&lt;/sup&gt;</td>
<td>43</td>
<td>3</td>
</tr>
<tr>
<td>Student profile&lt;sup&gt;d&lt;/sup&gt;</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>Is ESL level 3 (Advanced)</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>Professional judgment of counselor&lt;sup&gt;d&lt;/sup&gt;</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>Is ESL</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Tested out of the program&lt;sup&gt;e&lt;/sup&gt;</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>yNo scores were available</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Has never taken ITBS, Stanford 9 or TAKS</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Transferred from another school</td>
<td>7</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Attendance or behavior problems</td>
<td>6</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Is in Sheltered English</td>
<td>5</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Failed or failing reading</td>
<td>3</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Retained</td>
<td>2</td>
<td>&gt;1</td>
</tr>
<tr>
<td><strong>Total students with documented criteria</strong></td>
<td>774</td>
<td>54</td>
</tr>
<tr>
<td><strong>Total students with no documented criteria</strong></td>
<td>652</td>
<td>46</td>
</tr>
</tbody>
</table>

Note. All students with acceptable criteria were coded as Eligible, while those with unacceptable criteria were coded as ineligible.

<sup>a</sup>These scores would reflect data that were two years old.

<sup>b</sup>These scores would reflect data that were more than two years old.

<sup>c</sup>These criteria are unacceptable because these are Reading Improvement courses.

<sup>d</sup>These criteria both came from one school.

<sup>e</sup>This criteria is unacceptable because the students remained in Reading Improvement courses.

At all grades, there were more eligible students enrolled in Reading Improvement for both semesters than those that were not enrolled (Table 3). For the last five school years, there has been a continual improvement in the number of eligible students participating in Reading Improvement courses, with the 2003-04 enrollment having the highest percentage enrolled.
The greatest percentage of students who were eligible and enrolled at all grades was Hispanic (Grade 7, 60%; Grade 8, 58%; Grade 9, 59%). Of students that were ineligible and enrolled, 62%-66% at each grade were Hispanic. There were more eligible and enrolled males than females. Many students who were limited English proficient (LEP) were not eligible for Reading Improvement, but were enrolled regardless.

Enrollment Status of Eligible Students

A closer examination of students who were eligible for Reading Improvement showed that, across all grade levels, 62% were enrolled in Reading Improvement for both semesters (Table 4). This is an increase from 2002-03 when 54% of eligible students were enrolled for the full year (Denson, 2003). Only 6% of the eligible students were enrolled in Reading Improvement one semester. Nine percent, less than 1%, and 4% were enrolled in regular Reading, ESL Reading, and Special Education Reading, respectively. Eighteen percent were not enrolled in any reading course, which is a significant decrease from 2002-03 when 28% were not enrolled in any reading. One third (31%) of Grade 9 students who were eligible for Reading Improvement was not served in any reading course. Thirty-six percent of these eligible students (N = 939) were classified as Grade 9 students for a second year, and 56% of them (N = 553) already had a Reading I credit.

Reading Improvement courses were Reading Mastery, using either Corrective Reading or Read XL (Grades 7 and 8), Reading I, using Corrective Reading or other materials (Grade 9), and Read 180 (Grade 9). Reading 7 and 8 were also available as a required elective for students who scored above the 39th percentile and did not focus on remediation of reading difficulties. At Grade 9, Reading II and III were elective courses for students who had not passed TAAS.
### Table 3

Demographic Characteristics of Students by Enrollment Status in Reading Improvement and Grade

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Eligible for Reading Improvement</th>
<th>Ineligible for Reading Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrolled</td>
<td>Not Enrolled</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Grade 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1,362</td>
<td>37</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2,221</td>
<td>60</td>
</tr>
<tr>
<td>White</td>
<td>89</td>
<td>2</td>
</tr>
<tr>
<td>Asian</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>American Indian</td>
<td>9   &gt;1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>3,703</td>
<td>1,801</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,690</td>
<td>46</td>
</tr>
<tr>
<td>Male</td>
<td>2,013</td>
<td>54</td>
</tr>
<tr>
<td>LEP</td>
<td>730</td>
<td>20</td>
</tr>
<tr>
<td>Special education</td>
<td>299</td>
<td>8</td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>1,316</td>
<td>38</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,990</td>
<td>58</td>
</tr>
<tr>
<td>White</td>
<td>89</td>
<td>3</td>
</tr>
<tr>
<td>Asian</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>American Indian</td>
<td>11 &gt;1</td>
<td>5 &gt;1</td>
</tr>
<tr>
<td>Total</td>
<td>3,431</td>
<td>1,815</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,590</td>
<td>46</td>
</tr>
<tr>
<td>Male</td>
<td>1,841</td>
<td>54</td>
</tr>
<tr>
<td>LEP</td>
<td>760</td>
<td>22</td>
</tr>
<tr>
<td>Special education</td>
<td>323</td>
<td>9</td>
</tr>
<tr>
<td>Grade 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
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<tr>
<td>African American</td>
<td>1,274</td>
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<tr>
<td>Hispanic</td>
<td>2,059</td>
<td>59</td>
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<tr>
<td>White</td>
<td>112</td>
<td>3</td>
</tr>
<tr>
<td>Asian</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>American Indian</td>
<td>15 &gt;1</td>
<td>7 &gt;1</td>
</tr>
<tr>
<td>Total</td>
<td>3,479</td>
<td>2,580</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,624</td>
<td>47</td>
</tr>
<tr>
<td>Male</td>
<td>1,855</td>
<td>53</td>
</tr>
<tr>
<td>LEP</td>
<td>784</td>
<td>23</td>
</tr>
<tr>
<td>Special education</td>
<td>369</td>
<td>11</td>
</tr>
</tbody>
</table>

**Note.** Enrolled = enrolled in Reading Improvement for both semesters. Not Enrolled = not enrolled in Reading Improvement both semesters. Eligibility was based on spring 2003 ITBS scores and acceptable placement criteria. Percent refers to the proportion of students with a demographic characteristic within each enrollment status group. Percents may not add to 100 due to rounding. LEP = Limited English Proficiency.
Table 4

Enrollment Status of Students Eligible for Reading Improvement by Course and Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Eligible N</th>
<th>N %</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5,504</td>
<td>3,703</td>
<td>67</td>
<td>4</td>
<td>682</td>
<td>12</td>
<td>&gt;1</td>
<td>397</td>
<td>7</td>
<td>471</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>5,246</td>
<td>3,431</td>
<td>65</td>
<td>5</td>
<td>712</td>
<td>14</td>
<td>1</td>
<td>&gt;1</td>
<td>203</td>
<td>4</td>
<td>656</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>6,059</td>
<td>3,479 a</td>
<td>57</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>41</td>
<td>1</td>
<td>137</td>
<td>2</td>
<td>1,839</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>16,809</td>
<td>10,476</td>
<td>62</td>
<td>6</td>
<td>1,531</td>
<td>9</td>
<td>50</td>
<td>&gt;1</td>
<td>737</td>
<td>4</td>
<td>3,011</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: % = Percent of eligible population for that grade. Percents may not equal 100 due to rounding.

aThese data include Grade 9 students enrolled in Reading I, II and III.

On one of the student rosters, schools indicated reasons why eligible students were not served in a Reading Improvement course. It is important to note that none of the reasons listed in Table 5 are valid reasons for excluding eligible students from a Reading course, even if Reading Improvement was not an option for some legitimate reason. Of Grades 7-9 eligible students who were not served in any reading course, 21%, 16%, and 11%, respectively, had reported scheduling problems. At Grade 9, a slightly higher percentage of students (12%) were not enrolled because they were repeating that grade and already had Reading Improvement credit. For many students, it was indicated that they were either in special education or were LEP. Yet, these students were not enrolled in a special education or ESL reading course; therefore, they received no reading instruction.
<table>
<thead>
<tr>
<th>Reason for Non-enrollment</th>
<th>Grade 7 (N = 471)</th>
<th>Grade 8 (N = 656)</th>
<th>Grade 9 (N = 2,021)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Already has Reading Improvement credit</td>
<td>0</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Scheduling problems</td>
<td>98</td>
<td>21</td>
<td>107</td>
</tr>
<tr>
<td>In pre-Advanced Placement courses</td>
<td>43</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>Passed TAKS</td>
<td>60</td>
<td>13</td>
<td>49</td>
</tr>
<tr>
<td>Parent request</td>
<td>19</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Behavior problems</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>In reading tutoring</td>
<td>12</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>No reading score when scheduled</td>
<td>2</td>
<td>&gt;1</td>
<td>0</td>
</tr>
<tr>
<td>Reads on-level</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>ESL or LEP&lt;sup&gt;a&lt;/sup&gt;</td>
<td>57</td>
<td>12</td>
<td>38</td>
</tr>
<tr>
<td>In special education&lt;sup&gt;b&lt;/sup&gt;</td>
<td>35</td>
<td>7</td>
<td>98</td>
</tr>
<tr>
<td>In CR, RM or RI&lt;sup&gt;c&lt;/sup&gt;</td>
<td>15</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Withdrawn&lt;sup&gt;d&lt;/sup&gt;</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>In reconnect or night school&lt;sup&gt;d&lt;/sup&gt;</td>
<td>2</td>
<td>&gt;1</td>
<td>13</td>
</tr>
</tbody>
</table>

Note. (N) = number of eligible students not served in any Reading course for that grade. N = number of eligible students for which that reason for non-enrollment was given. CR = Corrective Reading. RM = Reading Mastery. RI = Reading Improvement.

<sup>a</sup>These students met the bilingual program level criteria to be placed in Reading Improvement; however, they were not served in an ESL Reading or Reading Improvement class.

<sup>b</sup>These students were eligible to be placed in Reading Improvement; however, they were not served in a special education Reading or Reading Improvement class.

<sup>c</sup>Schools indicated that these students were placed in a Reading Improvement course, but the database did not reflect these placements.

<sup>d</sup>Students may have been either withdrawn or in reconnect or night school when the roster was completed; however, students were enrolled at the end of the fall semester and during the spring semester.

**Eligibility of Students Enrolled in Reading Improvement**

Across all grades, 80% of students enrolled in Reading Improvement were eligible for services (Table 6). This is a 6% improvement from 2002-03 (Denson, 2003). Particularly, eligible student enrollment increased at Grade 9 from 76% in 2002-03 to 83% currently. There were three criteria by which students were ineligible for Reading Improvement: (a) lack of a pretest score, (b) scoring above the 39th percentile and (c) scoring below the bilingual program level needed for placement. Seven percent of the students lacked a pretest score or other criteria to determine placement, 12% had previously scored about the 39th percentile, and 2%
were below the bilingual program level needed for placement. Total numbers of eligible and ineligible students served by school can be found in Appendix C.

Table 6

Eligibility Characteristics of Students Enrolled in Reading Improvement

<table>
<thead>
<tr>
<th>Grade</th>
<th>Enrolled in Reading Improvement</th>
<th>Eligible and Enrolled</th>
<th>No Pretest or Other Score</th>
<th>Above 39th Percentile</th>
<th>Below Bilingual Program Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>7</td>
<td>4,706</td>
<td>3,703</td>
<td>79</td>
<td>309</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>4,428</td>
<td>3,431</td>
<td>77</td>
<td>317</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>4,213</td>
<td>3,479</td>
<td>83</td>
<td>336</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>13,347</td>
<td>10,613</td>
<td>80</td>
<td>923</td>
<td>7</td>
</tr>
</tbody>
</table>

Note. These data reflect students who were enrolled in Reading Improvement courses for both semesters. % = Percent of total enrollment in Reading Improvement for that grade. Pretest Score was spring 2003 ITBS. Other scores or criteria were reported on student rosters. Ineligible categories were not mutually exclusive.

Of the 35,366 Grades 7-9 students enrolled in the DISD both semesters, 16,809 (48%) were eligible for Reading Improvement services. About 18% of those eligible was not served in any reading program during the year, while ineligible students were enrolled in the program.

Enrollment in Reading Improvement Courses

There were several possible Reading Improvement course curricula at each grade in which students could have participated: (a) Reading Mastery using Read XL at Grades 7-8, (b) Reading Mastery using Corrective Reading at Grades 7 and 8, or Reading I at Grade 9, using Corrective Reading (c) Read 180, Grade 9, and (d) Reading I, Grade 9. Reading II and III were also available at Grade 9 for students who had not passed TAAS or TAKS. Although the course information in Table 7 was taken from the student course database, it is known that there were inaccuracies. In scheduling observations, teachers and deans of instruction frequently identified a specific class as something different from how it was identified on the database.

Percentages of students using Corrective Reading decreased as grade level increased: 43% of Grade 7 students as compared to only 23% of Grade 9 students. Conversely, the percentages of students in Reading Mastery, using Read XL, and Reading I increased. Ten percent of Grade 9 students in Reading Improvement used the Read 180 program.
Table 7

Enrollment in Spring 2004 Reading Improvement Courses by Grade

<table>
<thead>
<tr>
<th>Reading Improvement Courses</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Corrective Reading</td>
<td>2,189</td>
<td>43</td>
<td>1,855</td>
</tr>
<tr>
<td>RM, using Read XL</td>
<td>2,786</td>
<td>55</td>
<td>2,815</td>
</tr>
<tr>
<td>Reading I</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Read 180</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5,036</td>
<td>1</td>
<td>4,670</td>
</tr>
</tbody>
</table>

Note. RM = Reading Mastery.

*Corrective Reading* was offered through Reading Mastery in Grades 7 and 8 and through Reading I in Grade 9.

**ITBS Achievement Levels of Students in Reading Courses**

The following analyses included students with *ITBS* scores who were enrolled in the same reading course for both semesters. Mean percentile and median grade equivalent scores on the reading comprehension subtest of the *ITBS* (Table 8) were within the expected range if schools followed the suggested guidelines for placement. Yet, percents of students correctly placed based on percentile scores were low, particularly for Reading Mastery and Reading I. Table 9 delineates more completely the misplacement of students in each course.

*Corrective Reading*. At Grade 7, over half of the *Corrective Reading* students was enrolled in the Level B2 course (Table 8). At Grade 8, more students were enrolled in Level C. Half of Grade 9 *Corrective Reading* students was enrolled in the Level C course, with the next largest group in Level B2.

Mean 2003 *ITBS* reading comprehension percentile ranks and median grade equivalent scores for Grades 7 and 8 indicated that students placed at Levels A and B1 scored lower than students placed at Levels B2 and C. At Grade 9 there was more variation among the program levels. Median scores did not always align with the outcome grade equivalent levels suggested in the *Corrective Reading Series Guide*: 2.5 for Level A, 3.9 for Level B1, 4.9 for Level B2, and 7.0 for Level C (Engelmann et al., 1999). The median grade equivalent for Grade 7 students in Level A (3.6) was significantly higher than the predicted outcome of 2.5, while the median grade equivalents of Level A students at Grades 8 and 9 were more indicative of a Level C placement.
Particularly at Grades 8 and 9, students seemed to have been placed one or two levels below their capabilities.

Table 8
2003 ITBS Reading Comprehension Achievement Levels by Reading Course and Grade

<table>
<thead>
<tr>
<th>Reading Course</th>
<th>Number Enrolled Both Semesters</th>
<th>Number with ITBS Scores</th>
<th>Percentile Rank</th>
<th>Median Grade Equivalent</th>
<th>Percent of Students Correctly Placed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
<td></td>
</tr>
<tr>
<td>Grade 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM, using Corrective Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>140</td>
<td>126</td>
<td>15.4</td>
<td>14.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Level B1</td>
<td>202</td>
<td>195</td>
<td>15.2</td>
<td>13.8</td>
<td>3.6</td>
</tr>
<tr>
<td>Level B2</td>
<td>1,313</td>
<td>1,200</td>
<td>20.8</td>
<td>15.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Level C</td>
<td>524</td>
<td>485</td>
<td>23.0</td>
<td>16.6</td>
<td>4.5</td>
</tr>
<tr>
<td>CR Total</td>
<td>2,179</td>
<td>2,006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read 180</td>
<td>61</td>
<td>58</td>
<td>29.2</td>
<td>17.9</td>
<td>5.4</td>
</tr>
<tr>
<td>RM, using Read XL</td>
<td>2,786</td>
<td>2,405</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading 7</td>
<td>2,688</td>
<td>2,458</td>
<td>52.5</td>
<td>21.9</td>
<td>7.0</td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM, using Corrective Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>27</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Level B1</td>
<td>161</td>
<td>143</td>
<td>15.1</td>
<td>11.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Level B2</td>
<td>639</td>
<td>567</td>
<td>16.5</td>
<td>12.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Level C</td>
<td>1,028</td>
<td>930</td>
<td>23.0</td>
<td>17.3</td>
<td>4.9</td>
</tr>
<tr>
<td>CR Total</td>
<td>1,855</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM, using Read XL</td>
<td>2,815</td>
<td>2,429</td>
<td>26.0</td>
<td>17.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Reading 8</td>
<td>2,667</td>
<td>2,408</td>
<td>49.4</td>
<td>21.7</td>
<td>7.9</td>
</tr>
<tr>
<td>Grade 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading I, using Corrective Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>120</td>
<td>93</td>
<td>19.5</td>
<td>14.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Level B1</td>
<td>165</td>
<td>143</td>
<td>23.0</td>
<td>19.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Level B2</td>
<td>262</td>
<td>237</td>
<td>16.6</td>
<td>12.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Level C</td>
<td>503</td>
<td>463</td>
<td>17.8</td>
<td>12.5</td>
<td>5.2</td>
</tr>
<tr>
<td>CR Total</td>
<td>1,050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read 180</td>
<td>446</td>
<td>398</td>
<td>22.2</td>
<td>12.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Reading I</td>
<td>3,088</td>
<td>2,677</td>
<td>23.2</td>
<td>15.8</td>
<td>5.7</td>
</tr>
<tr>
<td>Reading II and III</td>
<td>200</td>
<td>161</td>
<td>21.3</td>
<td>18.0</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Note. These data were based on the spring 2004 student database and include only students with spring 2003 ITBS scores who were enrolled both semesters. RM = Reading Mastery. CR = Corrective Reading.

aThese students were correctly placed if they did not pass TAKS Reading in Grade 8 or TAAS or TAKS Reading in Grade 9.

It is understandable that some Corrective Reading students scored in the 25th-39th percentiles, particularly if they used the Corrective Reading program in previous years and experienced success (Table 9). However, placing 204 and 209 Grades 7 and 8 students with known percentile scores above 40, respectively, in Corrective Reading was clearly not within district guidelines.
Reading Mastery, using *Read XL*. More students at Grades 7 and 8 were enrolled in Reading Mastery than *Corrective Reading*. Students in these classes should have pretest scores between the 25th-39th percentiles. The mean percentile for students enrolled in Reading Mastery was approximately 28; however, only 30% of the Grades 7 and 8 students in these courses were correctly placed. The majority of misplaced students scored below the 26th percentile (52% at Grade 7, 54% at Grade 8). All middle schools offered Reading Mastery using *Read XL*, and only two middle schools did not use *Corrective Reading*.

Table 9

2003 *ITBS* Reading Comprehension Percentile Scores by Grade, Reading Course and Percentile Band

<table>
<thead>
<tr>
<th>Reading Course</th>
<th>1st-25th</th>
<th>26th-39th</th>
<th>40th and Above</th>
<th>Total Misplaced</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Grade 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM, using <em>Corrective Reading</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>102</td>
<td>81</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Level B1</td>
<td>164</td>
<td>84</td>
<td>23</td>
<td>12</td>
</tr>
<tr>
<td>Level B2</td>
<td>850</td>
<td>71</td>
<td>220</td>
<td>18</td>
</tr>
<tr>
<td>Level C</td>
<td>316</td>
<td>65</td>
<td>111</td>
<td>23</td>
</tr>
<tr>
<td>CR Total</td>
<td>1,432</td>
<td>71</td>
<td>370</td>
<td>18</td>
</tr>
<tr>
<td>Read 180</td>
<td>25</td>
<td>43</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>RM, using <em>Read XL</em></td>
<td>1,240</td>
<td>52</td>
<td>691</td>
<td>29</td>
</tr>
<tr>
<td>Reading 7</td>
<td>324</td>
<td>13</td>
<td>393</td>
<td>16</td>
</tr>
<tr>
<td>Grade 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM, using <em>Corrective Reading</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>21</td>
<td>100</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Level B1</td>
<td>115</td>
<td>80</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Level B2</td>
<td>454</td>
<td>80</td>
<td>75</td>
<td>13</td>
</tr>
<tr>
<td>Level C</td>
<td>588</td>
<td>63</td>
<td>179</td>
<td>19</td>
</tr>
<tr>
<td>CR Total</td>
<td>1,178</td>
<td>71</td>
<td>274</td>
<td>16</td>
</tr>
<tr>
<td>RM, using <em>Read XL</em></td>
<td>1,312</td>
<td>54</td>
<td>622</td>
<td>26</td>
</tr>
<tr>
<td>Reading 7</td>
<td>352</td>
<td>15</td>
<td>391</td>
<td>16</td>
</tr>
<tr>
<td>Grade 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading I, using <em>Corrective Reading</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level A</td>
<td>62</td>
<td>67</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Level B1</td>
<td>91</td>
<td>64</td>
<td>28</td>
<td>20</td>
</tr>
<tr>
<td>Level B2</td>
<td>181</td>
<td>76</td>
<td>47</td>
<td>20</td>
</tr>
<tr>
<td>Level C</td>
<td>370</td>
<td>80</td>
<td>69</td>
<td>15</td>
</tr>
<tr>
<td>CR Total</td>
<td>704</td>
<td>75</td>
<td>166</td>
<td>18</td>
</tr>
<tr>
<td>Read 180</td>
<td>215</td>
<td>54</td>
<td>159</td>
<td>40</td>
</tr>
<tr>
<td>Reading I</td>
<td>1,574</td>
<td>59</td>
<td>797</td>
<td>30</td>
</tr>
<tr>
<td>Reading II and III</td>
<td>1,111</td>
<td>56</td>
<td>28</td>
<td>14</td>
</tr>
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</table>

*Note*. These data were based on the spring 2004 student database and include only students with spring 2003 *ITBS* scores who were enrolled both semesters. % = Percent within course and grade. Percents may not add to 100 due to rounding. RM = Reading Mastery, CR = *Corrective Reading*. Shaded area = Students who were placed in suggested programs appropriate for their percentile score.
Read 180. Read 180 was used at one middle school. Over half of the students at that school scored above the 25th percentile with a mean grade equivalent of 5.4. The mean grade equivalent for Grade 9 students was 6.0, higher than the scores for Corrective Reading or Reading I. At Grade 9, 54% of the Read 180 students were correctly placed.

Reading I. At Grade 9, many more students were enrolled in Reading I than all the Corrective Reading courses combined. There were 13 high schools that did not use Corrective Reading; therefore, all of their Reading Improvement students were in Reading I. Another 2 high schools used only Level C. For this reason, it is difficult to say whether students in the 1st-25th percentile range were actually misplaced in Reading I. Because Corrective Reading materials were offered and recommended by the district, for the purposes of this report, those students were labeled as “misplaced.” Eleven percent of Reading I students scored above the 40th percentile; 6% of those scored above the 50th percentile.

Reading 7 and 8. Although Reading 7 and 8 were designed for students with little or no reading difficulties, 29% of the Grade 7 and 31% of the Grade 8 students enrolled in Reading 7 and 8, respectively, needed reading remediation.

Reading II and III. Of the Grade 9 students enrolled in Reading II or III, 59% did not pass the 2003 TAKS Reading subtest, and 10% did not take it. About 32% passed TAKS Reading and most likely should not have been enrolled in these courses.

Reading Improvement Teachers

Identification of Reading Improvement teachers using the course data file resulted in a total of 214 individuals that taught Reading Improvement courses. The majority of the Reading Improvement teachers was female (79%) and African American (55%) (Table 10). Most teachers held a bachelor’s degree (69%) and 57% of those teaching Reading Improvement courses had a reading certification. However, 34% of Reading Improvement teachers were certified through the Alternative Certification program. Thirty-six percent of the Reading Improvement teachers had five or less total years of teaching experience. Yet, another 31% had 21 or more years of experience. It appears that, in general, teachers who were inexperienced, especially in the area of reading remediation, served students who have consistently had a difficult time with reading.
<table>
<thead>
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<td>21</td>
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<tr>
<td>Female</td>
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<tr>
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<td>1-5</td>
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<td>5</td>
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<tr>
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<td>27</td>
<td>13</td>
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<td>57</td>
</tr>
<tr>
<td>Alternative certification</td>
<td>62</td>
<td>29</td>
</tr>
</tbody>
</table>

Note. Percents may not add to 100 due to rounding.

**Class Size**

Across the district, the mean number of students in each course was less than the required 1:20 class size. Five middle and four high schools averaged more than 22 students per class, with the highest number at Molina in Reading I classes (mean = 30 students per class). Of similar concern were the nine middle and two high schools that averaged less than 10 students per class. At these schools, teachers may not have been used as effectively as possible. The mean number of students per course by school can be found in Appendix D.

**Observations of Reading Classes**

Principals and teachers were notified of the observation date and time, and each class was observed for the entire period. For various reasons, not every class from the random selection was observed. The final sample included five classes of *Corrective Reading* Level C...
and four classes each of Reading I and Reading 8. Three classes each of Reading Mastery 7 and Read 180 were observed. Many of the Read 180 labs were not functioning; therefore, few classes were using the Read 180 computer labs.

**Student engagement.** A MANOVA found a statistically significant difference among reading programs on student engagement indicators [Wilkes $\lambda = .01$, $F(28, 36) = 2.76$, $p = .004$, $\eta^2 = .68$], although tests of between-subject effects found no differences. On some indicators, standard deviations were large, indicating that there were differences between teachers within programs. Students complied with teachers’ assignments and paid attention in each program (means = 4.6 and 4.5, respectively), with Reading 8 receiving the lowest ratings (Figure 3). Students worked together collaboratively in small groups in each program, but were less likely to do so in *Corrective Reading* (mean = 1.8) and Reading I (mean = 2.0) classes. Specific activities in each program are described in the next section.

Ratings for “Students showed interest, excitement and involvement in learning tasks” were between 3.0 and 3.7 for all programs except Read 180 (mean = 4.0). In all programs, students sometimes elaborated on the topic, more in Reading 8 (mean = 4.3) than in the other programs. Teachers of Reading I received the lowest ratings for creating opportunities to think (mean = 3.0) and instilling enthusiasm to learn (mean = 3.2), while Read 180 and Reading Mastery 7 teachers received the highest rating.

**Classroom management.** Mean ratings for classroom management indicators were between 4.1 and 4.9 for each reading course, with no significant differences among programs. The lowest mean ratings were for “Teacher reinforced desired behavior” (overall mean = 4.1).
Mean Rating
(1 = Very little like this class, 5 = Very much like this class)

Figure 3. Mean ratings on student engagement indicators by observed reading program.

**Teacher factors.** There were no statistically significant differences between programs on the six research-based teacher effectiveness factors (Figure 4). On some indicators there were large standard deviations, indicating greater differences among teachers within a program than between programs. For most factors, teachers of all programs received high ratings, particularly for Composure, Discipline, Affect, and Organization (overall means = 4.6). Teachers of Reading I and Corrective Reading C were rated lowest on Questioning (means = 3.9). Reading I (mean = 3.1), Corrective Reading (mean = 3.3) and Read 180 (mean = 3.6) teachers were rated lowest on Instructional Focus. Indicators for Instructional Focus included modeling the strategy, assigning real-life tasks, extending the lesson based on spontaneous events, connecting to students’ personal lives and focusing on learning, rather than just the procedure.
Teacher-student activities. The MANOVA revealed a significant multivariate effect [Wilkes λ = .024, F (28, 30) = 1.95, p = .037, η² = .61] among programs on the nine categories of reading and language arts activities (see Figure 1 for a description of the categories). The large effect size indicates that 61% of the variance in percents of time spent in the activities is attributable to the particular reading program. Between-subjects effects were significant only for Phonics [F (4, 14) = 7.98, p = .001, η² = .70]. No classes were observed in activities test preparation; therefore, there were no significant differences among programs for that activity.

Corrective Reading classes spent 10% of their time in phonics-related activities (Figure 5). This occurred during the individual and group reading of words from the Level C lessons that reviewed the sounds of groups of letters. Corrective Reading students were engaged in seatwork activities more than any other students (19%), but this occurred when students were using their workbooks.
Figure 5. Percent of time spent in reading and language arts activities by reading program.

Read 180 and Reading I classes spent more time (50%-52%) engaged in reading activities than Corrective Reading C (34%) and Reading Mastery 7 classes that used Read XL (37%). However, high standard deviations prevented these differences from being statistically significant, indicating that there was more variance within the programs than among the programs.

In Read 180 classes, students spent 27% of their time in the Other Activities category. Activities were coded as such when the whole class was working in small groups at various centers, on computers, or at their desks. The defining quality was that the teacher was monitoring and assisting all the groups, rather than working with a small group of students while others worked independently at centers. In two Read 180 classes, students were working in groups; however, the teacher was not instructing one group as suggested for rotation in the Read 180 Teacher’s Manual. Instead, all students worked independently. In only one class were students observed rotating through seatwork, computer work, and a small group session with the teacher.
Reading Mastery 7, using *Read XL*, and Reading 8 had the most balanced percents of time spent in various activities. These students spent time in reading, listening and speaking, writing, and seatwork. In the Reading Mastery 7 classes, the seatwork in each class was group seatwork where students worked together in pairs or small groups on an assignment.

**Materials.** Teachers were observed using a wide variety of materials. All *Corrective Reading* classes used the *Corrective Reading* Level C textbook and four of the five used the accompanying workbook (Figure 6). Students in one Read 180 class were observed using the program software and reading a novel. Another Read 180 class did not use the computer, but instead completed vocabulary worksheets and workbook pages. The other Read 180 class used the computers and software, as well as printed Read 180 material.

No Reading Mastery 7 classes used the *Read XL* textbook. One class was reading a novel and the other two completed worksheets or workbook pages. One Reading I class was reading a novel. The other two classes completed workbook pages on vocabulary or reading skills. A Reading 8 class used the Reading Improvement textbook, *Read XL*, and a main idea worksheet. Another class was reading a novel; the other used worksheets.

<table>
<thead>
<tr>
<th>Corrective Reading C (N = 5)</th>
<th>Read 180 (N = 3)</th>
<th>Read XL (N = 3)</th>
<th>Reading I (N = 4)</th>
<th>Reading 8 (N = 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Corrective Reading Level C textbook (5)</td>
<td>• Read 180 computer software (2)</td>
<td>• Measuring Up to the TAKS Level B (1)</td>
<td>• Measuring Up to the TAKS Level D (1)</td>
<td>• Read XL textbook (1)</td>
</tr>
<tr>
<td>• Corrective Reading Level C workbook (4)</td>
<td>• Vocabulary practice worksheet (1)</td>
<td>• Cause and Effect worksheet (1)</td>
<td>• Cause and Effect worksheet (1)</td>
<td>• Main Idea and Details worksheet (1)</td>
</tr>
<tr>
<td>• Fact and Opinion worksheet (1)</td>
<td>• <em>Wordskills 3</em> workbook (1)</td>
<td>• Inferences worksheet (1)</td>
<td>• <em>Wordskills 3</em> workbook (1)</td>
<td>• <em>Cause and Effect</em> worksheet (1)</td>
</tr>
<tr>
<td>• Bellringer (1)</td>
<td>• <em>The Outsiders</em> novel (1)</td>
<td>• <em>Holes</em> novel (1)</td>
<td>• <em>Freak the Mighty</em> novel (1)</td>
<td>• Bellringer (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• <em>Member of the Wedding</em> novel (1)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Number in parentheses indicates the number of classrooms in that program observed using that material.

Figure 6. Observed materials used in reading programs.

**Thinking levels.** The MANOVA revealed no significant differences among programs on the levels of thinking at which activities occurred. This most likely occurred because of the small numbers of classes observed and the large standard deviations, indicating differences may have been due more to the teacher’s choice of activities than the program.
Students in the two Reading Mastery courses, Corrective Reading and Read XL, spent more time at Level 1 thinking than other students (58% and 54%, respectively) (Figure 7). Level 2 thinking occurred while students completed workbook pages. The Decoding portion of the Corrective Reading program does not purport to foster higher order thinking (communication with Cary Andrews, SRA consultant for Corrective Reading, 2002), reasoning that students need to be able to read fluently before they can comprehend, much less analyze, evaluate or synthesize. However, it is of great concern when students are rarely challenged past a Knowledge level of thinking, regardless of their reading ability. Teachers had the flexibility to conduct other lessons during additional reading time that forced students to think. Nevertheless, no Level 3 or 4 thinking was observed in any Corrective Reading class. Students in the Read XL classes (none of which used the Read XL materials) did spend 8% of their time at Level 3 thinking. Though, the Level 3 thinking occurred on only one Read XL class, it was sustained for a significant.

![Figure 7. Percent of time spent in thinking levels by reading program.](image)

The other two Reading Improvement courses, Read 180 and Reading I, had similar percents of time at thinking Levels 1-3. In one class, Reading I students were engaged at Level 3 for 15% of the time. Students in Reading 8 varied their activities between Levels 1 (33%),
2 (43%) and 3 (20%). One Reading 8 class spent almost all of their time at Level 3 (91%), identifying and writing inferences from *Member of the Wedding*. None of the observed classes reached Level 4 thinking.

**Conclusions**

The trend to properly place students in reading courses continued in 2003-04, although there were still many students incorrectly placed either in Reading Improvement or Reading courses. This is most likely due to the efforts of the Reading Department in assisting schools to monitor their Reading Improvement enrollment. Although the district recommended reading courses for students based on academic achievement levels, some schools chose not to offer *Corrective Reading* for students scoring below the 25th percentile. These students were placed in either Reading Mastery, using *Read XL*, or Reading 7 or 8. This is likely less of a concern than the misplacement of students who scored above the 40th percentile in courses intended for those needing reading remediation. Another concern is the continued use of inexperienced or alternatively certified teachers working with students who need the most assistance developing their reading skills grades. Reading Improvement teachers should have a reading certification to assure that they have the knowledge necessary to work with this complex population.

Observable differences in reading classes were due more to teacher variation than program variation; hence, there were high standard deviations in mean ratings for classroom management, student engagement and effective teacher factors. However, 61% of the differences in the amounts of time spent in various reading and language arts activities were due to program differences. *Corrective Reading* classes spent more time in phonics and seatwork than other programs. Reading I spent more time in reading and writing, and Read 180 classes spent more time in other activities, such as centers.

In observed classes, fidelity to the suggested program curricula was a problem. *Corrective Reading* classes were more likely to use specified materials than did other programs. Only one Read 180 class rotated through their stations correctly. A wide variety of materials were used in Reading I. No Reading Mastery classes were observed using the *Read XL* text that
was purchased for intended use in this course. At least one observed class of each program was reading a novel.

Perhaps the most important difference in teacher-student activities among the programs was the amount of time spent at various thinking levels. *Corrective Reading* classes spent 90% of their time at Level 1 (Knowledge) and Level 2 (Comprehension) thinking, while other Reading Improvement courses were observed engaged in some Level 3 thinking. Observed Reading 8 students spent time at Levels 1 and 2, but 26% at Level 3. Teachers felt they had the flexibility to use whatever materials they wanted in their classes, but the variation did not foster higher order thinking.

Inappropriate scheduling, coupled with the number of Reading Improvement teachers with no special training in reading, remained a problem confronting the effectiveness of Reading Improvement. It is a challenge for all involved in the scheduling and placement of students to ensure that all those who were eligible and only those who were eligible are served in Reading Improvement. Placing any student, particularly those functioning above grade-level, in courses that require no thinking above a Knowledge or Comprehension level was unwarranted and potentially hazardous.
2.3 How did Reading Improvement impact student achievement in reading?

Methodology

The main goal of the Reading Improvement program was to increase the reading achievement levels of students who scored below the 40th percentile in reading comprehension. The following aspects of achievement were examined: (a) differences in reading outcomes based on eligibility and broad categories of reading courses, including Reading Improvement, Reading, ESL Reading, Special Education Reading, and no reading, (b) the impact of specific programs used in Reading Improvement, including Corrective Reading, Read XL, and Read 180, (c) differences in reading outcomes based on reading class status and pretest percentile score, (d) differences in achievement levels between White, African American and Hispanic students, and (e) differences between the passing rates of the Reading Improvement classes and the Reading Assessment of Course Performance (ACP).

In order to determine whether participation in Reading Improvement was associated with reading achievement, a series of analyses were conducted that assessed the contribution of the program to reading outcomes after removing the effects of other factors. Only students enrolled in a specified reading course for the full year (both semesters) were compared with their non-enrolled peers. Students enrolled in any reading course for only one semester were eliminated from the analyses.

For ease of reading, students eligible and ineligible for Reading Improvement are referred to as “eligible students” and “ineligible students,” respectively. In actuality, the ineligible group was comprised of three groups of students: (a) those without pretest scores, (b) those that scored at or above the 40th percentile, and (c) those whose bilingual program level was “Beginner” or “Intermediate.” For the following analyses, the ineligible group included only those students who scored at or above the 40th percentile.

Effects of Participation in Reading Improvement

Independent variables for most analyses were participation in a reading class (Reading Mastery, using either Corrective Reading or Read XL; Read 180; Reading I; Reading 7 and 8; or not enrolled in a reading class), eligibility for Reading Improvement (eligible and ineligible, based
on the factors described on p. 19), 2003 pretest percentile on the ITBS (below the 25th percentile, between the 25th and 39th percentile, and above the 39th percentile), and ethnicity (White, Hispanic and African American). Further analyses disaggregated Reading Improvement students by pretest percentile rank and Reading Improvement course: (a) Reading Mastery, using Corrective Reading, (b) Reading Mastery, using Read XL, or (c) Read 180.

*Iowa Tests of Basic Skills (ITBS)* reading comprehension. The dependent variable was spring 2004 *ITBS* reading comprehension Normal Curve Equivalent (NCE) scores for Grades 7-9. NCE scores have a mean of 50, which is equivalent to the 50th percentile on norm-referenced tests. Nevertheless, NCEs cannot be interpreted as percentiles because NCEs form an equal-interval scale, whereas percentiles do not. Gain scores were computed by subtracting spring 2004 *ITBS* NCE scores from spring 2003 scores that were extracted from the district’s test databases.

Multiple Regression analyses and Analyses of Variance (ANOVAs) were performed. The analyses assessed and controlled for the relative contribution of multiple individual and demographic factors to reading achievement before assessing the association of program participation with the outcomes. Thus, 2004 achievement scores were adjusted for the 2003 *ITBS* pretest score, gender, ethnicity, English proficiency, special education participation, and economic indicators (based on free and reduced lunch status). Contrast comparisons were used to assess differences of interest for specific combinations of students and courses. All analyses were conducted separately for each grade.

Smithson (2000) states that “Merely reporting whether a null hypothesis has been rejected or not is not sufficient and potentially misleading” (p. 185). For this reason, both confidence intervals and measures of effect size were reported. When significant interactions were present, Tukey’s Honestly Significant Difference (HSD) post hoc comparisons were made among evaluation groups. Effect sizes were measured with partial eta-square ($\eta_p^2$). This value assesses the proportion of variance in outcome scores explained by the independent variables, such as reading class status, eligibility or ethnicity.
Analyzing NCE gains always poses questions that require further investigation, including the significance of the gains or losses. Wilde and Sockey (1995) summarized the meaning of changes in NCEs for students at risk of educational failure.

- A drop in Normal Curve Equivalents often reflects the expected pattern, especially for students in upper grades. These students are behind their peers and continue to fall farther behind. A drop in scores could indicate an ineffective program, or it could reflect the presence of some other “negative” variable.

- No change indicates that students have made progress at the same rate as their “not-at-risk” peers. They are maintaining their level of achievement.

- A gain in scores shows considerable progress. The students are catching up to their grade-level peers. This greater than expected achievement could be due to the program or could be due to the presence of some other “positive” variable.

Mean student growth is considered to be significant if the increase or decrease in the NCE is greater than 3. Scores within the range \(-3 \leq x \leq +3\) are consistent with national growth expectations, approximately one year of growth for one year of instruction.

*Texas Assessment of Knowledge and Skills (TAKS) Reading.* TAKS Reading passing rates were disaggregated by grade, reading class participation, and eligibility. For some analyses, results were examined by pretest percentile rank on the 2003 ITBS reading comprehension subtest.

**Differences in Achievement by Student Ethnicity**

Regression and ANOVA procedures similar to the previous analyses were conducted to assess whether there were achievement differences in spring 2004 ITBS reading comprehension NCE scores between ethnic groups of students based on eligibility and reading class participation. However, the achievement scores of students were adjusted only for the effects of pretest score, gender, socioeconomic status, and special education status. All analyses were conducted separately by grade. Comparisons were made between African American, Hispanic and White students. The number of Asian and American Indian students was too small for inclusion. Interactions among independent variables were assessed as previously described.

Results for each analysis are reported in graphs by grade. Mean scores, standard deviations, confidence intervals, analysis of variance statistics and percentages for each ITBS analysis can be found in Appendix E.
Relationship of Observations to Reading Outcomes

*ITBS* adjusted reading comprehension NCE scores were obtained for students who were either (a) in the specific class that was observed, or (b) in the same course taught by the same teacher. Only scores of eligible students were considered because the purpose of the analysis was to isolate possible factors influencing the scores of students needing reading remediation. An ANOVA with post hoc procedures similar to those described previously was conducted to determine which program was the most beneficial for eligible students.

Assessment of Course Performance and Course Passing Rates

For each semester, the percentage of all students enrolled in Reading Mastery, using either *Read XL* or *Corrective Reading*, Read 180, Reading I or Reading 7 and 8 that passed the ACP and the course were tabulated by grade and compared. In a related analysis, only eligible students were included to assess performance in all placements.

Results for the 2003 *Iowa Tests of Basic Skills (ITBS)* Administration

Results by Grade, Eligibility and Reading Class Status

Mean adjusted reading comprehension NCE scores. At Grade 7, the difference among the groups on mean adjusted reading comprehension NCE scores was statistically significant \[F(5, 7671) = 38.5, p < .001, \eta_p^2 = .024\]. Students who were ineligible, but enrolled in Reading Improvement had the lowest mean adjusted NCE scores (mean = 37.2). Post hoc tests found that students who were eligible, but enrolled in Reading (mean = 44.0), had similar mean adjusted NCE scores as ineligible students enrolled in Reading (mean = 43.1) or those not in a reading class (mean = 45.6). A small effect size (.02) indicated that 2% of the variance in scores could be attributed to eligibility and reading class status.

These results were duplicated at Grade 8 \[F(5, 7664) = 30.5, p < .001, \eta_p^2 = .02\], where ineligible students enrolled in Reading Improvement scored lowest (mean = 38.8). Post hoc tests showed that students enrolled in Reading, either eligible (mean = 45.0) or ineligible (mean = 44.6) had similar mean adjusted NCE scores to those who were ineligible and in no reading class (mean = 45.4). The effect size was small (2%), indicating little practical significance.
At Grade 9, only ineligible students placed in Reading Improvement (mean = 36.2) scored lower than each of the other evaluation groups (mean range = 40.0 – 41.8) \[ F(3, 6214) = 27.7, \ p < .001, \ \eta^2_p = .013 \]. However, there were only 288 students in the low scoring group. The effect size indicated that the differences between groups were of limited practical significance.

For each grade, confidence intervals showed that students who were ineligible for Reading Improvement because they had pretest scores above the 40th percentile had the lowest possible range of scores of any group. They scored lower than students who were eligible and received no reading services at all (Figure 8). This startling phenomenon has occurred repeatedly for the past four school years (2000-01, 2001-02, 2002-03 and now 2003-04) (Denson, 2001, 2002, 2003). The pervasiveness of this problem led to classroom observations of the different programs. Results of observations may begin to explain a portion of the reasons underlying the problem. These will be discussed in Relationship of Observations to Reading Outcomes, p. 69.
Figure 8. Confidence intervals for mean adjusted ITBS reading comprehension NCE scores by eligibility and reading class status.

Mean adjusted reading comprehension NCE gain scores. At Grade 7, the difference among the groups on mean adjusted reading comprehension NCE gain scores was statistically significant \([F (5, 7671) = 39.4, p < .001, \eta_p^2 = .025]\) (Figure 9). A small effect size indicated that 2% of the variance in scores could be attributed to eligibility and reading class status. Students who were ineligible, but enrolled in Reading Improvement, had significant negative NCE gains (mean = -5.2). All other student groups had losses or gains within the expected range.

Although differences among groups were statistically significant at Grade 8 \([F (5, 7664) = 34.5, p < .001, \eta_p^2 = .02]\), confidence intervals showed that most groups functioned in the expected -3 to +3 range. Eligible students in Reading 8 and ineligible students that did not take reading had mean NCE gains of 3.3.

At Grade 9, only ineligible students placed in Reading Improvement (mean gain = -6.9) had a significant negative gain \([F (3, 6210) = 26.1, p < .001, \eta_p^2 = .012]\). The sample size for this group was small (N = 288) and the effect size indicated that the differences in groups were of limited practical significance.
Figure 9. Confidence intervals for mean adjusted ITBS reading comprehension NCE gain scores by eligibility and reading class status.

Results by Reading Improvement Class Status

Mean adjusted reading comprehension NCE scores. Because eligibility is a known significant factor and Reading Improvement courses were created for eligible students, only eligible students were included in the following analyses. In Grades 7 and 9, there were no significant differences in mean adjusted NCE reading comprehension scores between Reading Improvement students in Corrective Reading, Read XL (Grade 7) or Reading I (Grade 9). Confidence intervals showed that the possible ranges of means at Grade 7 for students in Corrective Reading or Read XL were well below the mean for the grade (Figure 10). The confidence interval for Grade 7 Read 180 students (N = 52) was very wide, indicating that some students scored well above the mean for Grade 7 (mean = 42.0), while others did not. At Grade 9, the confidence intervals for Corrective Reading and Reading I were below the mean for that grade (mean = 40.2), while the Read 180 confidence interval showed that some eligible students did quite well, but others did not.
At Grade 8, there were significant differences between students enrolled in the two Reading Mastery classes using *Corrective Reading* or *Read XL* \[F(1, 3451) = 10.2, \ p = .001, \ \eta_p^2 = .003\]. The extremely small effect size indicated that the difference between the two classes was of little practical significance. Confidence intervals showed that the mean adjusted NCE for Reading Improvement students, regardless of program, was well below the grade mean of 42.9. However, students using the *Read XL* materials had higher mean adjusted NCEs than those using *Corrective Reading*.

Mean adjusted reading comprehension NCE gain scores. There were no statistically significant differences among groups of Reading Improvement students’ NCE gain scores at Grades 7 and 9. Even though there was statistical significance at Grade 8 \[F(1, 3451) = 14.6, \ p < .001, \ \eta_p^2 = .004\], confidence intervals showed that gains were within the expected range for a year’s time in school (Figure 11). There was no statistical difference in the gain scores of Grade 9 Reading Improvement students, but many had negative gains greater than –3.
Results by Reading Class and Pretest Percentile Band

Mean adjusted reading comprehension NCE scores. Student scores were disaggregated by reading class participation and pretest percentile rank because Reading Improvement courses were recommended based on students’ pretest percentile ranks on the 2003 ITBS administration. Regardless of grade, if students were enrolled in a reading class, a similar pattern developed for each pretest percentile group: as the pretest percentile increased, the mean adjusted NCE score for the group decreased (Figure 12). Students who pretested below the 25th percentile had higher mean adjusted NCE scores than those who pretested between the 25th and 39th percentile who in turn scored higher than students that pretested at or above the 40th percentile. This occurrence cannot be attributed to “regression toward the mean” because the statistical procedure used to calculate each student’s adjusted NCE score equated students for pretest. Only students with pretest scores were used in the analyses.

The pattern was particularly noticeable for Grades 7 and 8 students in Reading Mastery, using either Read XL or Corrective Reading and for Grade 9 students in any Reading Improvement course. However, if students were not enrolled in a reading class, different patterns were seen. Students pretesting on or above grade level (i.e., at or above the 40th percentile) had
a higher mean adjusted NCE score than students pretesting below the 40th. The position varied by grade of students pretesting between the 25th and 39th percentile in relation to the other groups. This same pattern also was found in the 2002-03 evaluation (Denson, 2003).

Multiple comparisons of a large number of groups are difficult to interpret and sample sizes of some groups were much smaller than others. Nevertheless, the fact that this phenomenon has repeatedly occurred bears further investigation. Several contrast comparisons were made of individual groups of interest. However, specific comparisons of all groups’ means and confidence intervals can be found in Appendix E.

Contrast comparisons between all Grades 7 or 8 students pretesting below the 25th percentile in a Reading Improvement course (Read XL, Corrective Reading, or Read 180, at the appropriate grade levels) and those in Reading 7 or 8 (designed for students achieving above the 40th percentile) found statistically significant differences at Grades 7 \([F (1, 4297) = 15.2, p < .001, \eta_p^2 = .004]\) and 8 \([F (1, 4216) = 11.3, p = .001, \eta_p^2 = .003]\). At both grades, students pretesting below the 25th percentile had higher mean adjusted NCE scores if they were enrolled in Reading 7 or 8, rather than a Reading Improvement course. However, small effect sizes indicated that these differences were of little practical significance.
Figure 12. Confidence intervals for mean adjusted ITBS reading comprehension NCE scores by pretest percentile and Reading courses.
The other contrast comparison of interest was between all students pretesting above the 40th percentile misplaced in a Reading Improvement course (Read XL, Corrective Reading, or Read 180, at the appropriate grade levels) and those correctly placed in Reading 7 or 8. Again, there were statistically significant differences at Grades 7 \([F(1, 2870) = 101.1, \ p < .001, \ \eta_p^2 = .034]\) and 8 \([F(1, 2874) = 103.2, \ p < .001, \ \eta_p^2 = .035]\). Effect sizes indicated that about 4% of the variance in students’ scores could be attributed to their Reading course placement.

At Grade 9 there were no mandatory reading classes for grade level students. However, students who pretested above the 40th percentile who were misplaced in Reading I or Corrective Reading had mean adjusted NCE scores that were significantly lower than students who pretested below the 25th percentile and were served in corresponding classes. Confidence intervals revealed that there was a 95% chance that the true mean adjusted NCE scores for those misplaced students were now below the 40th percentile.

Mean adjusted reading comprehension NCE gain scores. There were statistically significant interactions among reading course placement and pretest percentile scores at Grades 7 \([F(8, 7662) = 9.2, \ p < .001, \ \eta_p^2 = .009]\), 8 \([F(6, 7658) = 9.6, \ p < .001, \ \eta_p^2 = .007]\) and 9 \([F(6, 6202) = 3.9, \ p = .001, \ \eta_p^2 = .004]\). Primarily, each pretest percentile group had very small confidence intervals, indicating that the mean was indicative of each group’s true score (Figure 13). For most student groups, gains were within the expected range between –3 and +3. Yet, for students already scoring at least two years below grade level, a year’s growth is not sufficient to reach on-grade level status.
Figure 13. Confidence intervals for mean adjusted ITBS reading comprehension NCE gain scores by pretest percentile and Reading courses.
Contrast comparisons were made between (a) groups of students pretesting below the 25th percentile and (b) students pretesting above the 40th percentile, in other words, on grade-level. Specific comparisons of all groups’ means and confidence intervals can be found in Appendix E. When comparing all Grades 7 or 8 students pretesting below the 25th percentile in a Reading Improvement course (Read XL, Corrective Reading, or Read 180, at the appropriate grade levels) and those in Reading 7 or 8 (designed for students achieving above the 40th percentile), statistically significant differences were found: Grades 7 \( F(1, 2307) = 9.5, p < .002, \eta^2_p = .004 \) and 8 \( F(1, 2286) = 21.7, p < .001, \eta^2_p = .009 \). Although the differences were significant at Grade 7, gains were well within the expected ± 3 range. At Grade 8, students in Reading 8 made significant NCE gains (mean = 5.0).

The other contrast comparison was between all students pretesting above the 40th percentile misplaced in a Reading Improvement course (Read XL, Corrective Reading, or Read 180, at the appropriate grade levels) and those correctly placed in Reading 7 or 8. Again, there were statistically significant differences at Grades 7 \( F(1, 2237) = 88.7, p < .001, \eta^2_p = .038 \) and 8 \( F(1, 2216) = 109.7, p < .001, \eta^2_p = .047 \). Effect sizes indicated that 4%-5% of the variance in students’ scores could be attributed to their Reading course placement. Ineligible Grade 7 students placed in Reading Improvement had a significant negative NCE gain of –5.7. Results were not as dramatic at Grade 8.

At Grade 9, the only comparison that could be made was between eligible and ineligible students enrolled in Reading Improvement. The mean gain was –1.4 for students pretesting below the 25th percentile correctly placed in Reading Improvement. For students pretesting above the 40th percentile incorrectly placed in Reading Improvement, the mean negative gain was -7.0. This was a significant loss, meaning that these students not only did not gain a year’s growth for a year in school, they lost ground instead.

Results for the 2004 TAKS Administration

Results by Grade, Eligibility and Reading Class Participation

At Grade 7, a greater percentage of eligible students enrolled in Reading 7 (74%) passed the reading portion of the TAKS than those enrolled in Reading Improvement (51%) or not
enrolled in any reading class (58%) (Figure 14). Eligible Grade 8 students enrolled in Reading (83%) were more likely to pass than those enrolled in Reading Improvement (67%) or not enrolled in a reading class (70%). Differences were less evident at Grade 9, where eligible students enrolled in Reading I (58%) or no reading class (61%) had similar passing rates.

Although numbers of eligible students enrolled in ESL or Special Education Reading were small, passing rates were much lower for these two courses. However, teachers and counselors may have had reasons other than a pretest reading comprehension score to place students in these courses.

The passing rates for ineligible students were very high, particularly those students either enrolled in no reading class (Grade 7, 97%; Grade 8, 98%) or enrolled in Reading 7 or 8 (95% and 99%, respectively). However, ineligible Grade 7 and 9 students who were incorrectly enrolled in Reading Improvement courses had the lowest passing rates of any group of ineligible students at those grades. Only 84% and 89% of Grades 7 and 9 ineligible students, respectively, that attended both semesters of Reading Improvement classes passed. At Grade 8, percentages of ineligible students passing were similar, regardless of reading class participation.
Of the three Reading Improvement courses offered at Grade 7, there were higher percentages of eligible students passing TAKS Reading in courses using Read XL (56%) and Read 180 (56%) (Figure 15). Yet, there was a 74% passing rate for the eligible students in Reading 7, the course designed for students above the 40th percentile. The lowest passing rate
for eligible Grade 8 students was for those using *Corrective Reading* (61%) and the highest passing rate was for those enrolled in Reading 8 (83%). Similar percentages of Grade 9 students passed *TAKS* Reading, regardless of whether they were enrolled in Reading I (61%), Read 180 (60%) or no reading class (61%).

![Graphs showing passing rates by grade, eligibility, and reading course participation](image_url)

**Figure 15.** Percent of students passing *TAKS* Reading by grade, eligibility for Reading Improvement, and reading course participation.
Ineligible Grade 7 students incorrectly placed in Reading Improvement courses had lower passing rates (Read XL, 86%; Corrective Reading, 83%; Read 180, 56%) than those correctly placed in Reading 7 (95%) or 8 (99%). As a whole, ineligible Grade 8 students performed well on TAKS Reading, regardless of Reading course placement. At Grade 9, the lowest passing rates for ineligible students were those misplaced in Corrective Reading (79%).

Results by Reading Class and Pretest Percentile Rank

Student scores were disaggregated by reading class participation and pretest percentile rank because Reading Improvement courses were recommended based on pretest percentile ranks on the 2003 ITBS (Figure 16). At Grade 7, more than 90% of students pretesting above the 40th percentile passed TAKS Reading if they were enrolled in Reading 7 or no reading class. Equal percentages of students scoring above the 40th percentile who were enrolled in Reading Mastery, using either Corrective Reading or Read XL passed (approximately 85%). Greater percentages of students pretesting between the 25th and 39th percentiles passed TAKS Reading if enrolled in Reading Mastery using Read XL (74%) than if using Corrective Reading (62%). However, 86% and 83% of these students passed TAKS when enrolled in Reading 7 or no reading at all, respectively. Students who had previously scored below the 25th percentile had higher passing rates if enrolled in Reading 7 (59%) than Reading Improvement courses.

Almost all Grade 8 students who pretested above the 40th percentile passed TAKS Reading, regardless of reading course placement. Similar percentages of students scoring between the 25th and 39th percentiles passed TAKS regardless of whether they attended Reading Mastery, Reading 8 or no reading class. Eighty percent of those students that were enrolled in Corrective Reading passed. Greater percentages of students pretesting below the 25th percentile passed if enrolled in Reading 8 (74%) than in Reading Mastery using either Read XL (64%), Corrective Reading (57%) or no reading class (61%).

Almost all (97%) Grade 9 students who scored above the 40th percentile and were enrolled in no reading class passed TAKS Reading. Students misplaced in Reading I (89% passed) and Corrective Reading (78% passed) did not do as well. Approximately equal percentages of students scoring between the 25th and 39th percentiles passed TAKS regardless
of reading course placement (Reading I, 78%; Read 180, 83%; Corrective Reading, 76%; or no reading class, 82%). For students pretesting below the 25th percentile, either Corrective Reading or Read 180 was recommended. In those two courses, approximately 40% of the students passed.

Figure 16. Percent of students passing TAKS Reading by grade, reading course participation, and pretest percentile rank.
Ethnicity Effect

Results for ITBS Reading Comprehension

Differences by ethnicity. Analyses of differences on ITBS reading comprehension mean adjusted NCE scores among ethnic groups discovered statistically significant differences at Grades 7-9. Differences were of small practical significance, explaining about 1% of the variance in scores. At Grade 7, post hoc tests found that White students (mean = 48.7) had a significantly higher mean adjusted NCE score than Hispanic (mean = 41.9) and African American students (mean = 41.1) \( F(2, 7865) = 55.5, \ p < .001, \ \eta^2_p = .014 \). For Grade 8, White students (mean = 48.7) had a significantly higher mean adjusted NCE score than Hispanic (mean = 42.7) and African American students (mean = 42.4) \( F(2, 7781) = 40.1, \ p < .001, \ \eta^2_p = .01 \).

There were significant differences among the mean adjusted NCE scores of Grade 9 students \( F(2, 6608) = 48.7, \ p < .001, \ \eta^2_p = .015 \). Post hoc tests showed that the mean adjusted NCE for White students (48.7) was significantly different from adjusted means for Hispanic (mean = 40.1) and African American students (mean = 39.9).

Differences by pretest percentile level and ethnicity. The goal of Reading Improvement is to bring the achievement level of minority students closer to the level of White students. Planned comparisons were used to assess differences between specific groups of students based on ethnicity and pretest achievement level. In the first comparison, African American and Hispanic students were compared to White students, all pretesting above the 40th percentile and therefore, ineligible for Reading Improvement (Figure 17).

At each grade there was a statistically significant difference in the mean adjusted NCE scores of White students verses African American and Hispanic students, with White students scoring highest. However, adjusted means for all groups were low. The adjusted mean for Grade 7 White students was 50.2, roughly corresponding to a grade equivalent (GE) of 7.8, while the adjusted mean for African American and Hispanic students was 42.2, equivalent to a GE of 6.5, still below grade level for students at the end of Grade 7. At Grade 8, means ranged from 49.7 (GE = 8.7) for White students to 43.2 (GE = 7.5) for African American and Hispanic students. Although Grade 9 White students scored higher than other students, the GE
corresponding to their mean adjusted NCE (mean = 47.1) was only 9.1, well below the expected end of year grade equivalent of 9.8.

Figure 17. Confidence intervals for mean adjusted ITBS reading comprehension NCE scores for students pretesting above the 40th percentile by grade and ethnicity.

Differences by ethnicity and Reading course status. Further analyses were conducted to determine whether other factors contributed to the differences. At Grades 7 and 9, there was a statistically significant interaction between ethnicity and the reading class in which students were enrolled (Reading Improvement, Reading for Grades 7 or 8 or no Reading). However, effect sizes were small, indicating that the differences were of little practical significance. Confidence intervals around true mean scores were very small for African American and Hispanic students in each reading setting, indicating very little variance in scores (Figure 18). White students had slightly more diversity in their scores.

At Grade 7, African American and Hispanic students scored lower than White students, regardless of which reading program they attended \([F(8, 7555) = 2.4, \ p = .047, \ \eta^2 = .001]\). There was a significant interaction because African American and Hispanic students who took Reading 7 or who took no reading class scored higher than their peers in Reading Improvement. White students scored similarly across all reading programs.
Both ethnicity \( [F (2, 7747) = 14.9, \ p < .001, \ \eta_p^2 = .004] \) and Reading class \( [F (2, 7747) = 16.8 \ p < .001, \ \eta_p^2 = .004] \) were significant predictors of students' adjusted NCE scores at Grade 8, but the interaction was not significant. Students in Reading Improvement had
similar scores, regardless of ethnicity. White students in Reading 8 or in no reading class scored significantly higher than Hispanic and African American students.

There was a significant interaction between reading class status and ethnicity for Grade 9 students \[ F(5, 6121) = 11.2, p < .001, \eta_p^2 = .004 \]. White students that were not enrolled in Reading Improvement (mean = 47.4) had significantly higher mean adjusted NCE scores than any other group of students, regardless of ethnicity or reading class status. Yet, because an NCE of 50 corresponds to the 50th percentile, this adjusted mean was still below the national average.

Results for TAKS Reading

The passing rates for Grades 7-9 students varied mostly by reading class participation and eligibility for Reading Improvement services (Figures 19-21). Eligible African American and Hispanic students in Reading 7 or 8 had higher passing rates than their eligible peers enrolled in Reading Improvement courses or no reading class. Eligible White students in no reading class had a higher passing rate at each grade than eligible students in Reading Improvement. Ineligible students taking Reading 7 or 8 or no reading class had very high passing rates of 92% or greater.

![Figure 19. Percent of Grade 7 students passing TAKS Reading by reading class participation, eligibility and ethnicity.](image-url)
Figure 20. Percent of Grade 8 students passing TAKS Reading by reading class participation, eligibility and ethnicity.

Figure 21. Percent of Grade 9 students passing TAKS Reading by reading class participation, eligibility and ethnicity.

**Relationship of Observations to Reading Outcomes**

It is clear that multiple factors impact a student’s performance, including the specific Reading class, eligibility for Reading Improvement, pretest percentile rank and ethnicity. Although it is of considerable interest to understand why ineligible students enrolled in Reading
Improvement courses appear to lose ground academically, for this report, it is of more concern to evaluate programs based on their ability to assist eligible students. For that reason, only scores of eligible students were considered in this section.

Among eligible students, there was a statistically significant difference between the mean adjusted reading comprehension NCE scores of those in Reading 8 (mean = 47.6) and the four Reading Improvement programs \( F(4, 829) = 7.3, \ p < .001, \ \eta^2 = .034 \). Overlapping confidence intervals showed that there was little difference in the scores of eligible students who took Reading Improvement courses, regardless of program (Figure 22).

![Figure 22. Mean adjusted reading comprehension NCE confidence intervals for the five observed programs.](image)

Patterns for mean NCE reading comprehension gain scores were similar for each program (Figure 23). There was a statistically significant difference between the gains for eligible students in Reading 8 and those enrolled in the four Reading Improvement programs \( F(4, 829) = 10.96, \ p < .001, \ \eta^2 = .05 \). Eligible students enrolled in Reading 8 made significant gains (mean = 5.5), while the mean loss for students in Reading I was –3.6. Other NCE gains were within the expected range of NCE change.
Realizing that this observed sample of students (N = 886) was much smaller than the district population of eligible Reading Improvement students (N = 16,809), it is best to make generalizations regarding the relationship of observation data to student outcomes in reading. Across the district, Grades 7 and 8 students in Reading Mastery, using either Corrective Reading or Read XL, who pretested below the 25th percentile had higher mean adjusted reading comprehension NCE scores and gain scores than their counterparts who had pretested between the 25th-39th or above the 40th percentile. However, students pretesting below the 25th percentile who were enrolled in Reading 7 or 8 scored significantly higher than those enrolled in Reading Improvement (refer to Figure 12 on p. 56 and Figure 13 on p. 58 or Appendix E). So it is not surprising that eligible students in observed classes followed the same pattern.

One of the anticipated outcomes of conducting observations was to ascertain why eligible students enrolled in a reading class specifically designed for students reading at grade-level or above had better academic success than students placed in a Reading Improvement course purportedly designed for their needs. Two inferences can be drawn from the 2003-04 reading class observations.

1. Students in Reading 8 classes spent 80% of their time engaged in reading (46%), writing (8%) or listening and speaking (25%) activities. (Refer to Figure 5 on p. 41 for the amounts of time spent in all reading and language arts activities for each observed program.) The remaining 20% was spent in seatwork (16%) or transition between activities (3%). Little time was wasted on any other activities (1%). Students in Reading Mastery, using Read XL, had very similar percents of time spent on reading, writing, listening and speaking and seatwork, but spent 7% and 4% on other and nonacademic activities, respectively. Other Reading Improvement classes divided their time much differently than Reading 8.
Further differences were noted between the programs in time spent in various thinking levels. Students in Reading 7 spent a balanced amount of time between lower and higher order thinking, even reaching the Synthesis and Evaluation levels in two classes (see Figure 7 on p. 43). In contrast, only one class each of Read 180, Reading I and Reading Mastery 7, using Read XL, reached Level 3. Students in Corrective Reading were never asked to think above the Comprehension level. It may be that the thinking level at which students are asked to function for a particular activity has a greater impact on academic achievement than what program or materials were used or whether the activity was specifically reading, writing, or listening and speaking in nature.

Assessment of Course Performance and Course Passing Rates

The number and percent of students passing the Assessment of Course Performance (ACP) and the Reading classes were computed by grade and reading course. A passing score was equal to or greater than 70. Students in any Reading Improvement course took the Reading Mastery or Reading I ACP for their appropriate grade. Grade 7 or 8 students took the Reading 7 or 8 ACP.

Regardless of grade or semester, for most courses, the percentage of students who passed the course was greater than the percentage passing the ACP (Table 11). Course passing rates for the fall were slightly higher than those for the spring. In the fall semester, the highest passing rates were for students enrolled in Read 180 at Grades 7 and 9 and Reading 8 at Grade 8. Grade 9 students in Reading I had the highest passing rate in the spring.
Table 11
Number and Percent of Students Tested and Passing ACPs and Reading Courses by Grade, Course and Semester

<table>
<thead>
<tr>
<th>Reading Course</th>
<th></th>
<th>Fall Semester</th>
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<th>Spring Semester</th>
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<tr>
<td></td>
<td>ACP</td>
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<td></td>
</tr>
<tr>
<td></td>
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<td>Percent Passing</td>
<td>Number Graded</td>
<td>Percent Passing</td>
<td>Number Tested</td>
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<td>Grade 7</td>
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<tr>
<td>RM, using Read XL</td>
<td>2,672</td>
<td>78.3</td>
<td>2,679</td>
<td>80.5</td>
<td>2,740</td>
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<tr>
<td>RM, using CR</td>
<td>2,363</td>
<td>63.9</td>
<td>2,345</td>
<td>79.0</td>
<td>2,157</td>
</tr>
<tr>
<td>Read 180</td>
<td>59</td>
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<td>59</td>
<td>93.2</td>
<td>56</td>
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<td>Reading 7</td>
<td>2,759</td>
<td>86.5</td>
<td>2,749</td>
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<td>Grade 8</td>
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<tr>
<td>RM, using Read XL</td>
<td>2,718</td>
<td>80.3</td>
<td>2,724</td>
<td>84.0</td>
<td>2,803</td>
</tr>
<tr>
<td>RM, using CR</td>
<td>1,980</td>
<td>63.6</td>
<td>1,951</td>
<td>82.6</td>
<td>1,870</td>
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<td>Reading 8</td>
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<td>Read 180</td>
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<td>Reading I</td>
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<td>84.2</td>
<td>3,091</td>
<td>86.2</td>
<td>2,799</td>
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Note. ACP = Assessment of Course Performance. RM = Reading Mastery. CR = Corrective Reading.

A similar analysis was conducted including only eligible students who were enrolled in the same reading course for both semesters (Table 12). A higher percentage of students passed in the fall than in the spring if enrolled in Reading Mastery using Read XL. The course passing rate was slightly higher in the spring than the fall for Grades 7 and 8 students using Corrective Reading. At Grade 9, the passing rate for both the ACP and the course was slightly lower in the spring for all Reading Improvement courses.

In accordance with ITBS results for eligible students misplaced in Reading 7 or 8, greater than 80% of these students passed the course in both fall and spring semesters. Although the number of students enrolled in these courses was not as high as the numbers enrolled in Reading Improvement courses, it shows that most students were able to function well enough in these courses to pass.
Table 12

Number and Percent of Students Eligible for Reading Improvement Tested and Passing ACPs and Reading Courses by Grade, Course and Semester

<table>
<thead>
<tr>
<th>Reading Course</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td></td>
<td>ACP</td>
<td>Course</td>
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<tr>
<td></td>
<td>Number Tested</td>
<td>Percent Passing</td>
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<tr>
<td></td>
<td>Number Graded</td>
<td>Percent Passing</td>
</tr>
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<td>Grade 7</td>
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<tr>
<td>RM, using Read XL</td>
<td>1,535</td>
<td>78.6</td>
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<tr>
<td>RM, using CR</td>
<td>1,418</td>
<td>67.5</td>
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<td>Read 180</td>
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<td>Reading 7</td>
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<tr>
<td>Grade 8</td>
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<td>RM, using Read XL</td>
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<td>78.1</td>
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<tr>
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</tr>
<tr>
<td>Reading I</td>
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</table>

Note. RM = Reading Mastery. CR = Corrective Reading. Only students who were eligible for Reading Improvement and were enrolled in the same reading course for both semesters were included in the analysis.

Conclusions

The goals for the analyses of standardized test scores were to examine (a) the impact of the Reading Improvement program, in general, on the achievement of eligible and ineligible students, (b) the impact on reading achievement of the Reading Improvement programs, including Reading Mastery using either Corrective Reading or Read XL, and Read 180, (c) differences in achievement levels between White, African American and Hispanic students, and (d) differences between the passing rates of the Reading Improvement classes and Reading Assessment of Course Performance. Results for these goals are summarized below.

Impact of Reading Improvement on the Achievement of Eligible and Ineligible Students

ITBS reading comprehension scores. At Grades 7 and 8, students who were eligible for Reading Improvement, yet served in a Reading 7 or 8 class had higher mean adjusted NCE scores than eligible students served in Reading Improvement. Eligible students served in either Reading Improvement or Reading 7 or 8 had higher scores than eligible students who were not enrolled in any reading class. Students who were ineligible for Reading Improvement because they had pretested above the 40th percentile had the highest mean adjusted NCE scores if they
did not take any reading class. Ineligible students enrolled in Reading 7 or 8 (their correct placement) scored similarly to eligible students in Reading Improvement. Ineligible students incorrectly placed in Reading Improvement had the lowest mean NCE scores of any group of students, scoring well below the grade-level mean.

At Grade 7, students who were ineligible, but enrolled in Reading Improvement, had significant negative NCE gains (mean = -5.2). All other student groups had losses or gains within the expected range. At Grade 8, most students functioned in the expected -3 to +3 range. Eligible students in Reading 8 had positive NCE gains. At Grade 9, results were similar. Eligible students scored lower than eligible and ineligible students who were not served. However, ineligible students placed in Reading Improvement had lower mean adjusted NCE scores than any other group, falling well below the grade-level mean score. Only ineligible students placed in Reading Improvement had a significant negative gain. However, the small sample and effect sizes indicated that the differences in groups were of limited practical significance.

These results duplicate findings from four previous Reading Improvement evaluations (Denson, 2001, 2002, 2003; Enchautegui, 2000). It is critical that students who are eligible for Reading Improvement are served in a reading class. It is even more crucial that students who are ineligible are not placed in Reading Improvement. Regression toward the mean is not a possibility in this case because the effect of the pretest was statistically removed from the posttest scores.

**TAKS Reading.** Contrary to ITBS results, greater percentages of ineligible Grades 7-9 students passed TAKS Reading than eligible students, regardless of their reading class status. Eligible students served in Reading 7 or 8 had higher passing rates than their counterparts served in Reading Improvement classes. It may be that activities conducted in Reading Improvement classes, regardless of the materials used, were more specifically designed to boost students’ TAKS scores than to use the higher order thinking skills required for success on the ITBS.
Impact of the Reading Improvement Programs

At Grade 7, there were three possible Reading Improvement programs in which students participated: Reading Mastery using Corrective Reading, Reading Mastery using Read XL or Read 180 (at one school only). Grade 8 students used only Corrective Reading or Read XL. Reading 7 and 8 was available for students reading on or above grade level, although many eligible students were placed in these courses. Reading Improvement programs for Grade 9 included Reading I, Corrective Reading and Read 180.

In Grade 7, there were no significant differences in mean adjusted ITBS reading comprehension NCE scores between eligible Reading Improvement students in Reading Mastery, using either Corrective Reading or Read XL. Grade 8 students using Read XL had greater NCE gains than those using Corrective Reading. Similarly in Grade 9, there were no significant differences in mean adjusted NCE scores or gain scores among students enrolled in Corrective Reading, Reading I or Read 180. The mean adjusted NCE scores for Reading Improvement students, regardless of reading course, were slightly below the mean for all Grade 9 students.

Results disaggregated by pretest percentile band and reading class. Because Reading Improvement courses were recommended based on students’ pretest scores (2003 ITBS), results for both ITBS and TAKS were disaggregated by pretest percentile band (below the 25th, 25th to 39th, 40th and above) and reading course. When Grades 7-9 students enrolled in any reading class were compared by percentile band, students who pretested below the 25th percentile had higher mean adjusted ITBS reading comprehension NCE scores than those who pretested between the 25th and 39th percentile who in turn scored higher than students that pretested at or above the 40th percentile. However, if not enrolled in a reading class, students pretesting on or above grade level had a higher mean adjusted NCE score than students pretesting below the 40th percentile. The position varied by grade when the students pretested between the 25th and 39th percentile in relation to the other groups. Stated in the simplest of terms, students enrolled in Reading 7 and 8 or no reading class had higher mean adjusted NCE scores than students enrolled in any Reading Improvement course, regardless of their pretest
starting position. Misplacement in a Reading course, intended for students needing no remediation, was actually helpful to students who read below grade level. However, for students pretesting on or above grade level who were misplaced in Reading Improvement, the effects were harmful. These students actually lost ground throughout the year rather than maintaining or increasing their academic achievement levels on the ITBS.

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Achievement Differences by Ethnicity

Although there were statistically significant differences in the mean adjusted reading comprehension NCE scores of students by ethnicity, almost all of the analyses found that these differences were due more to eligibility and class placement than to the ethnicity of the students. Effect sizes for most significant differences found the results to be of little or no practical significance. Results for TAKS Reading were similar in that passing rates varied mostly by reading class participation and eligibility, regardless of ethnicity.

Differences in Passing Rates on Reading Courses and the Reading ACP

Students in each Grades 7 and 8 Reading Improvement course took the Reading Mastery ACP. Grade 9 students in any Reading Improvement course took the Reading I ACP.
For most courses, greater percentages of students passed the course than passed the ACP in the fall and spring semesters.

Among eligible students, passing rates were highest for students in Reading Mastery, using Read XL materials. More than 80% of those misplaced in Reading 7 or 8 passed the course in both fall and spring semesters.

SUMMARY

The goal of the Reading Improvement program was to help students scoring below the 40th percentile in reading comprehension improve their achievement on norm- and criterion-referenced reading tests. The program relied on three components to achieve its goal: (a) a curriculum that supported targeted instruction aligned with local, State, and national objectives, (b) teachers with specialized certification in reading, and (c) a small teacher-student ratio (1:20). For the 2003-04 school year, the only difficulty was the number of reading-certified teachers.

Almost half (48%) of all Grades 7-9 students were eligible to receive Reading Improvement services. Of the eligible students, 62% were enrolled both semesters in Reading Improvement courses. Nine percent were enrolled in Reading (Grades 7 and 8), and 18% were not enrolled in any reading course. Ineligible students were enrolled in the program, making up 20% of the total number enrolled. Students enrolled, but ineligible, did not have ITBS data from the previous year (7%) or were limited in English proficiency (below the “Advanced” bilingual program level) (2%). Additionally, 12% of enrolled students had a reading comprehension percentile too high to qualify for compensatory education.

Various Reading Improvement courses were recommended based on students’ pretest ITBS reading comprehension percentile score. Reading Mastery, using Corrective Reading, was suggested for students scoring below the 26th percentile. It was used by 43%, 40%, and 23% of Grades 7, 8 and 9 students, respectively. Reading Mastery, using Read XL, was for Grades 7-8 students scoring between the 25th and 39th percentiles. Over half (55%, Grade 7; 60%, Grade 8) of the students were enrolled in this course. Reading 1 was the corresponding course for Grade 9 students (67%). Read 180 was recommended for students scoring below the 25th
percentile and was used in one Grade 7 school and 9 high schools. Ten percent of Grade 9 Reading Improvement students used Read 180.

Many schools did not place students in the appropriate district-recommended Reading Improvement courses. Only 29% of Grades 7 and 8 students were correctly placed in Reading Mastery, using Read XL. Most of the misplaced students had pretest scores below the 26th percentile. Many Grade 9 students (59%) enrolled in Reading I scored below the 26th percentile and were recommended for Corrective Reading.

Fifty-seven percent of teachers teaching Reading Improvement courses had reading specialist certificates or degrees. Half (54%) of the Reading Improvement teachers had less than 6 years of teaching experience and 29% received an Alternative Certification. Teachers who were not the most experienced and knowledgeable about reading problems taught the students who most needed assistance with reading remediation.

Observations were conducted of Corrective Reading, Read XL, Read 180, Reading I and Reading 8. There was a significant difference in the programs only in the amount of time spent in Phonics. Corrective Reading classes spent 10% of their time in phonics-related activities during the individual and group reading of words from lessons that emphasized decoding. Reading 8 classes were engaged in Listening and Speaking activities 25% of their time, three times as much as Corrective Reading and Reading I. Read 180 classes spent 27% of their time in Other Activities, which included working in small groups at various centers, on computers, or at their desks.

Use of materials other than those recommended suggested a lack of fidelity to the recommended programs. All Corrective Reading classes used the Corrective Reading textbook and four of the five used the accompanying workbook. Only two Read 180 classes were observed using the program software because hardware did not function correctly. Even in these two classes, the teacher rarely worked with one group individually, preferring to have all students working in groups and monitoring all groups’ activities. Four of the observed classes were reading novels.
In Reading Mastery, no classes were observed using the Read XL textbook. Other classes used workbooks and read novels. No Reading 8 classes were observed using the State-adopted text, Interactive Reader. Instead, one teacher used the Read XL textbook purchased for the Reading Mastery class and the others used workbooks or worksheets.

The most important difference in teacher-student activities among the five programs was the amount of time spent at various thinking levels. Students in the two Reading Mastery courses, Corrective Reading (58%) and Read XL (54%), spent more time at Level 1 thinking than other students. In contrast, Reading 8 classes spent 26% of their time at Level 3. The Decoding portion of the Corrective Reading program stressed that students need to be able to read fluently before they can comprehend, much less analyze, evaluate or synthesize. However, it is of great concern when students are rarely challenged past a Knowledge level of thinking, regardless of their reading ability. Teachers had the flexibility to conduct other lessons that could stretch students to think and were provided materials to use during additional reading time. Nevertheless, no Level 3 thinking was observed in any Corrective Reading class. No Level 4 thinking was observed in any of the classes.

The analyses determining whether Reading Improvement was associated with increased reading achievement included only students who were enrolled in Reading Improvement or Reading for the full year (both semesters) and their non-enrolled peers. Independent variables were participation in a reading class, eligibility for Reading Improvement, pretest percentile bands and ethnicity.

Regardless of grade or the reading program materials used by students, the following conclusions can be drawn from results regarding ITBS reading comprehension NCE scores. At Grades 7 and 8, students who were eligible for Reading Improvement, yet served in a Reading 7 or 8 class had higher mean adjusted NCE scores than eligible students served in Reading Improvement. Eligible students served in either Reading Improvement or Reading 7 or 8 had higher scores than eligible students who were not enrolled in any reading class. Students who were ineligible for Reading Improvement because they had pretested above the 40th percentile had the highest mean adjusted NCE scores if they did not take any reading class. Ineligible
students enrolled in Reading 7 or 8 (their correct placement) scored similarly to eligible students in Reading Improvement. Ineligible students incorrectly placed in Reading Improvement had the lowest mean NCE scores of any group of students, scoring well below the grade-level mean.

At Grade 7, students who were ineligible, but enrolled in Reading Improvement, had significant negative NCE gains (mean = -5.2). All other student groups had losses or gains within the expected range. At Grade 8, most students functioned in the expected -3 to +3 range. Eligible students in Reading 8 had positive NCE gains. At Grade 9, results were similar. Eligible students scored lower than eligible and ineligible students who were not served. However, ineligible students placed in Reading Improvement had lower mean adjusted NCE scores than any other group, falling well below the grade-level mean score. Only ineligible students placed in Reading Improvement had a significant negative gain. However, the small sample and effect sizes indicated that the differences in groups were of limited practical significance.

Contrary to ITBS results, greater percentages of ineligible Grades 7-9 students passed TAKS Reading than eligible students, regardless of their reading class status. Eligible students served in Reading 7 or 8 had higher passing rates than their counterparts served in Reading Improvement classes. It may be that activities conducted in Reading Improvement classes, regardless of the materials used, were more specifically designed to boost students’ TAKS scores than to use the higher order thinking skills required for success on the ITBS.

These conclusions lead to unanswered questions regarding teachers, students, and the instruction received. Under the presumption that teachers’ ability was similar in Reading Improvement and other reading courses in which eligible students were enrolled, there were other influences at work. Among potential explanations is the phenomenon of expectations held by teachers and students about students placed in remedial courses. In a course for low-achieving students, teachers may have the expectation that their students cannot make great gains. In a regular reading classroom, where students are expected to score above the 40th percentile, both eligible and ineligible students may be challenged. Observations of both Reading Improvement and Reading courses suggest that this is true, particularly regarding the thinking levels at which students are engaged. Negative expectations about students may affect
self-efficacy beliefs and performance of both teachers and students, which is reflected in lower standards, poorer content, less motivation, and inadequate instructional strategies, among others (Bong, 2001; Green, 2000; Klassen, 2001, 2002; Tauber, 1998).

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in Reading Mastery, using *Read XL* materials. More than 80% of those misplaced in Reading 7 or 8 passed the course in both fall and spring semesters.

In conclusion, the implementation of the Reading Improvement program was greatly improved for the 2003-04 school year. Numbers of eligible students served increased, while numbers of ineligible students served decreased. However, accountability on the part of schools is needed to give priority to *all* eligible students during enrollment, the assignment of qualified teachers to the courses, and the maintenance of reduced class sizes.
REFERENCES


Appendix A

2003-04 Reading and Language Arts
Observation Form
Observer’s Name: __________________________________________
Observer’s Number: ____________________
Date: ___________________

2003-04 READING AND LANGUAGE ARTS OBSERVATION FORM

IDENTIFICATION INFORMATION

1. School: ___________________________ 2. TEA: ________________
5. Number of Students Observed: ___________________________

6. Program/component observed (circle all that apply):
   a. Dallas Reading Plan  b. Reading Mastery  c. Corrective Reading  d. Reading
   e. Other (specify) _______________________________________

AFTER THE OBSERVATION

Use the following scale to rate the degree that each item describes the class that you observed:

<table>
<thead>
<tr>
<th>Very Little</th>
<th>Somewhat</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

7. STUDENT ENGAGEMENT

<table>
<thead>
<tr>
<th>Very Little</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>a.</td>
<td>Students complied with teacher’s assignments.</td>
</tr>
<tr>
<td>b.</td>
<td>Students paid attention in class with minimal disruption.</td>
</tr>
<tr>
<td>c.</td>
<td>Students showed interest, excitement and involvement in learning tasks.</td>
</tr>
<tr>
<td>d.</td>
<td>Students worked together to explore ideas collaboratively.</td>
</tr>
<tr>
<td>e.</td>
<td>Students elaborated on the topic by raising questions or sharing their ideas.</td>
</tr>
<tr>
<td>f.</td>
<td>Teacher created opportunities for students to think and reason things through.</td>
</tr>
<tr>
<td>g.</td>
<td>Teacher instilled enthusiasm for learning.</td>
</tr>
</tbody>
</table>

Comments about student engagement/disengagement:
### 8. CLASSROOM MANAGEMENT

<table>
<thead>
<tr>
<th>Did Not Occur</th>
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<th>Very Much</th>
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<td>2</td>
</tr>
<tr>
<td>0</td>
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<td>3</td>
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<tr>
<td>0</td>
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<td>4</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

- **h.** Teacher maintained orderly transitions from activity to activity.
- **i.** Teacher interacted with students in a nonconfrontational manner.
- **j.** Teacher reinforced desired behavior.

Comments about classroom management:

### 9. TEACHER FACTORS

<table>
<thead>
<tr>
<th>Does Not Apply</th>
<th>Very Little</th>
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<td>4</td>
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<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

- **k.** Teacher allowed students to think or answer first, rather than providing the explanation or answer for them.
- **l.** Teacher rephrased examples in different terms rather than repeating the same thing unsuccessfully.
- **m.** Teacher was approachable for questions or assistance without fear of criticism.
- **n.** Teacher modeled the strategy when introducing or reviewing a concept.
- **o.** Teacher assigned real-life tasks.
- **p.** Teacher "seized" the moment - extended the lesson based on spontaneous events.
- **q.** Teacher was poised.
- **r.** Teacher projected authority without projecting dominance or intimidation.
- **s.** Teacher was warm and caring.
- **t.** Teacher used time wisely.
- **u.** Teacher projected self-confidence.
- **v.** Teacher managed/maintained student discipline appropriately.
- **w.** Teacher used a normal, conversational tone of voice.
- **x.** Teacher was organized.
- **y.** Teacher’s focus was more on making sure that students learned, rather than on the procedure/structure.
- **z.** Teacher created opportunities to connect learning to students' personal lives.

Comments about teacher factors:
<table>
<thead>
<tr>
<th>Time</th>
<th>Elapsed Time</th>
<th>Activity</th>
<th>Thinking Level</th>
<th>Descriptive Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Teacher-Student Interaction</td>
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<tr>
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Appendix B

Description of Coded Activities
### Reading Observations Coding Scheme

**Reading**

<table>
<thead>
<tr>
<th>Code #</th>
<th>Activity label</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teacher introduces a book</td>
<td>The teacher introduces a new book by asking simple questions about the cover (illustration), what the title is, what the story may be about, who the author is, who the illustrator is.</td>
</tr>
<tr>
<td>2.</td>
<td>Story Walk</td>
<td>The teacher introduces the text by talking about the cover and the title. Students are encouraged to make predictions about story. With young students, teacher guides students to look at each page and continue to make predictions. Teacher may point out unfamiliar words or concepts. This activity takes more than a minute or two because teacher elaborates.</td>
</tr>
<tr>
<td>3.</td>
<td>Teacher reading aloud, uninterrupted</td>
<td>The teacher reads a story or any text from beginning to end at least once. There are few or no interruptions for questions.</td>
</tr>
<tr>
<td>4.</td>
<td>Teacher reading aloud, with questions</td>
<td>The teacher reads a story or any text, stopping throughout the reading to ask comprehension or prediction questions or to engage the students in some discussion.</td>
</tr>
<tr>
<td>5.</td>
<td>Student reading aloud, with questions</td>
<td>Students take turns reading aloud (amount of individual reading depends upon age). Teacher stops at appropriate points and asks comprehension/prediction questions.</td>
</tr>
<tr>
<td>6.</td>
<td>Student reading (aloud), – other students listening</td>
<td>Student reads aloud while other students are listening quietly. This will usually occur during the reading lesson, in a large or small group.</td>
</tr>
<tr>
<td>7.</td>
<td>Student reading (aloud) – to themselves</td>
<td>A student reads aloud to him/herself, while other students are also reading aloud to themselves. Teacher monitors all students, possibly stopping to listen to students individually. Students are instructed not to listen to each other.</td>
</tr>
<tr>
<td>8.</td>
<td>Students choral read</td>
<td>All students are reading aloud together. This may be in a small or large group.</td>
</tr>
<tr>
<td>9.</td>
<td>Free choice student silent reading</td>
<td>Students select their own reading material and read silently at desks or in reading center for a specified amount of time (This could be DEAR)</td>
</tr>
<tr>
<td>10.</td>
<td>Independent assigned student silent reading</td>
<td>Students are reading silently at their desks during the lesson as part of an assignment</td>
</tr>
<tr>
<td>11.</td>
<td>Teacher monitored, student silent reading (not in a reading group)</td>
<td>Students are reading silently at their desks, as teacher monitors and assists individual students. Teacher may spend a short period of time listening to a student read orally.</td>
</tr>
<tr>
<td>12.</td>
<td>Oral comprehension questions</td>
<td>Teacher asks oral comprehension questions related to the material previously read by the teacher or students.</td>
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</tr>
<tr>
<td><strong>13. Discuss unfamiliar words or concepts</strong></td>
<td>Teacher call students’ attention to unfamiliar words or concepts that appear in the text before the students read or as they encounter them in the text. This can include a vocabulary lesson related to the story.</td>
<td></td>
</tr>
<tr>
<td><strong>14. Discuss lesson content (other than text comprehension)</strong></td>
<td>Teacher leads students in a discussion regarding the content of the lesson. Topic is related to, but not based on text.</td>
<td></td>
</tr>
<tr>
<td><strong>15. Short answer comprehension</strong></td>
<td>Students are completing comprehension questions related to text previously read. The answers may be short answer, fill in the blank, true-false, etc. These may take the form of questions on the board or chart, workbook, worksheets, etc.</td>
<td></td>
</tr>
<tr>
<td><strong>16. Center activities</strong></td>
<td>All students are engaged in activities in centers. The teacher may or may not be working with student(s).</td>
<td></td>
</tr>
<tr>
<td><strong>17. One-to-one reading</strong></td>
<td>Student(s) read individually to teacher</td>
<td></td>
</tr>
<tr>
<td><strong>18. Choral reading with questions</strong></td>
<td>Students choral read a selection. Teacher stops at appropriate points and asks comprehension or prediction questions.</td>
<td></td>
</tr>
<tr>
<td><strong>19. Skills instruction based on text</strong></td>
<td>Includes finding endings, using cues, main idea, structure, phonics, part of speech; but must be based on the text from which the students were reading</td>
<td></td>
</tr>
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</table>
## Developmental Writing

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.</td>
<td>Word copying (word banks, vocabulary, spelling lists)</td>
</tr>
<tr>
<td>27.</td>
<td>Sentence copying</td>
</tr>
<tr>
<td>28.</td>
<td>Sentence writing</td>
</tr>
<tr>
<td>29.</td>
<td>Shared writing</td>
</tr>
<tr>
<td>30.</td>
<td>Writing skill instruction</td>
</tr>
<tr>
<td>31.</td>
<td>Student reads aloud own writing, either completed or in progress</td>
</tr>
<tr>
<td>32.</td>
<td>Independent writing</td>
</tr>
<tr>
<td>33.</td>
<td>Organizing information in writing</td>
</tr>
<tr>
<td>34.</td>
<td>Interactive writing</td>
</tr>
<tr>
<td>35.</td>
<td>Word writing</td>
</tr>
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### Language Arts

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>51.</td>
<td>Independent seatwork</td>
</tr>
<tr>
<td>52.</td>
<td>Proofing (spelling, capitalization, punctuation, etc.)</td>
</tr>
<tr>
<td>53.</td>
<td>Group seatwork</td>
</tr>
<tr>
<td>54.</td>
<td>Reading/language arts game</td>
</tr>
</tbody>
</table>

### Phonics Instruction

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>60.</td>
<td>Phonemic awareness (oral blending)</td>
</tr>
<tr>
<td>61.</td>
<td>Word blending</td>
</tr>
<tr>
<td>62.</td>
<td>Individual student word reading</td>
</tr>
<tr>
<td>63.</td>
<td>Group word reading</td>
</tr>
</tbody>
</table>
### Listening/Speaking

<table>
<thead>
<tr>
<th>76. Introducing content</th>
<th>Teacher introduces academic content through a warm-up activity or other “anticipatory set” designed to get students’ attention. The teacher may ask for students’ experiences with the topic.</th>
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</thead>
<tbody>
<tr>
<td>77. Developing content</td>
<td>Teacher may be lecturing, demonstrating, explaining or modeling the content or strategies. The teacher and students may be asking questions.</td>
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<tr>
<td>78. Reviewing content</td>
<td>Teacher is obviously reviewing previously introduced content. The teacher and students may be asking questions.</td>
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<tr>
<td>79. Orally organizing information</td>
<td>Students orally offer brief thoughts in response to a reading activity or in preparation for some other activity. Teacher may or may not be writing the information. Includes the use of graphic organizers, such as story or word maps, webbing, other charts or diagrams, K-W-L charts.</td>
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<tr>
<td>80. Directions for homework/assignments</td>
<td>Students listen to and may ask questions about directions for homework or other class assignments</td>
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<td>81. Checking/grading assignments with instruction included</td>
<td>Teacher and students go over students’ work, checking students’ responses to a previously assigned activity. Students are asked to explain answers and/or teacher provides short reteaching exercises when necessary.</td>
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<tr>
<td>82. Reading related singing</td>
<td>Students sing or read words to songs that are clearly related to a reading lesson</td>
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<td>83. Student presentation</td>
<td>Students recite poems, demonstrate definitions, read special reports, etc. This activity is clearly planned, not spontaneous.</td>
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### Other

<table>
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<th>101. Nonacademic</th>
<th>Activities which serve as fillers between other activities or have no noticeable academic content.</th>
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<tr>
<td>102. Transition</td>
<td>Periods of time that it takes teachers and students to finish one activity and start another</td>
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<td>103. Checking, grading</td>
<td>Teacher and students go over students’ work, checking students’ responses to a previously assigned activity.</td>
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<td>104. Test</td>
<td>Teacher gives students a test or quiz. (spelling tests, vocabulary tests)</td>
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<td>105. ITBS/TAKS practice</td>
<td>Lesson focuses exclusively or almost exclusively on Stanford 9/TAAS test-taking skills. Generally, worksheets or mock test items are used. Lesson may also include teacher’s comments on test content.</td>
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<tr>
<td>106. Nonreading academic activity</td>
<td>Academic activity related to something other than language arts, e.g. singing, math, social studies, etc.</td>
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Appendix C

Eligible and Ineligible Students Enrolled in Reading Improvement by School
### Eligible and Ineligible Students Enrolled in Reading Improvement by School

<table>
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<th>School</th>
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<th>Total Eligible Percent</th>
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*appendix continues*
## Appendix C, continued

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**Note.** “Total Enrolled” includes only students who attended both semesters of a Reading Improvement course. “-“ = no available information.
Appendix D

Number of Teachers, Sections and Class Size by School and Course,
Spring Semester 2004
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**Note.** Number of Teachers = number of teachers teaching the specified course. Teachers may be responsible for more than one course.
Appendix E

2003 *ITBS* Reading Comprehension Adjusted Normal Curve Equivalents and ANOVA Statistics
### ITBS Adjusted Reading Comprehension NCE Scores and ANOVA Statistics by Eligibility, Reading Class Status and Grade

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Note. RI = Reading Improvement. Shaded cells indicate that placement matches eligibility. SS = sum of squares. df = degrees of freedom. MS = mean squares. $\eta_p^2$ is a measure of effect size.
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**Note.** SS = sum of squares. df = degrees of freedom. MS = mean squares. ηp² is a measure of effect size.
### ITBS Adjusted Reading Comprehension NCE Scores and ANOVA Statistics

<table>
<thead>
<tr>
<th>Reading Class and Pretest</th>
<th>Mean Adjusted NCE</th>
<th>Standard Deviation</th>
<th>95% Confidence Interval</th>
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<tr>
<td>Percentile Range</td>
<td>Number</td>
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#### Grade 7

**Corrective Reading**
- Below 25th: 1,163, 41.7, 14.2, 40.9 – 42.4
- 25th-39th: 218, 38.0, 13.0, 36.1 – 39.7
- 40th or above: 128, 36.0, 14.5, 33.7 – 38.4

**Reading Mastery 7**
- Below 25th: 1,120, 41.9, 14.0, 41.2 – 42.7
- 25th-39th: 530, 40.0, 13.6, 38.9 – 41.2
- 40th or above: 398, 36.6, 13.6, 35.2 – 37.9

**Read 180**
- Below 25th: 22, 45.5, 12.3, 39.8 – 51.1

**Reading 7**
- Below 25th: 441, 45.4, 13.7, 44.1 – 46.6
- 25th-39th: 514, 44.2, 13.0, 43.0 – 45.4
- 40th or above: 1,861, 43.4, 12.8, 42.8 – 44.0

**No Reading**
- Below 25th: 178, 42.5, 15.6, 40.5 – 44.5
- 25th-39th: 102, 44.5, 14.0, 41.8 – 47.1
- 40th or above: 1,128, 45.8, 13.4, 45.1 – 46.6

#### Grade 8

**Corrective Reading**
- Below 25th: 982, 43.2, 13.4, 42.3 – 44.0
- 25th-39th: 222, 38.0, 12.3, 36.4 – 40.0
- 40th or above: 109, 34.0, 14.6, 31.5 – 36.5

**Reading Mastery 8**
- Below 25th: 1,077, 43.9, 13.6, 43.0 – 44.7
- 25th-39th: 519, 40.2, 12.5, 39.0 – 41.3
- 40th or above: 328, 38.0, 13.6, 36.5 – 39.4

**Reading 8**
- Below 25th: 518, 46.8, 14.6, 45.6 – 47.9
- 25th-39th: 584, 44.3, 13.7, 43.2 – 45.4
- 40th or above: 1,550, 44.9, 13.1, 44.2 – 45.6

**No Reading**
- Below 25th: 279, 44.0, 15.2, 42.4 – 45.6
- 25th-39th: 169, 41.9, 13.9, 39.8 – 43.9
- 40th or above: 1,202, 47.4, 13.5, 46.6 – 48.2

#### Grade 9

**Corrective Reading**
- Below 25th: 423, 40.9, 11.6, 39.6 – 42.1
- 25th-39th: 106, 36.1, 12.0, 33.7 – 38.6
- 40th or above: 64, 34.0, 12.2, 30.8 – 37.2

**Reading 1**
- Below 25th: 1,200, 41.5, 12.8, 40.8 – 42.3
- 25th-39th: 481, 38.1, 11.6, 36.9 – 39.2
- 40th or above: 259, 36.7, 12.5, 35.1 – 38.2

*table continues*
Appendix E (Continued)

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Note. SS = sum of squares. df = degrees of freedom. MS = mean squares. $\eta^2_p$ is a measure of effect size. READ_IMP = reading class status. P_SCORE = pretest percentile range. Interaction = statistical interaction between reading class status and pretest percentile range.