

Chapter 4 Texas Assessment of Knowledge and Skills (TAKS), TAKS (Accommodated), and Linguistically Accommodated Testing (LAT)

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Overview

TAKS

In 1999 the 76th Texas Legislature enacted Senate Bill 103, mandating implementation of a new statewide testing program. The new testing requirements, subsequently named the Texas Assessment of Knowledge and Skills (TAKS), were implemented in spring 2003. By law, all eligible Texas public school students are assessed with TAKS in mathematics in grades 3–10 and exit level; reading in grades 3–9; writing in grades 4 and 7; English language arts in grades 10 and exit level; science in grades 5, 8, 10, and exit level; and social studies in grades 8, 10, and exit level.

The TAKS test is designed to measure the extent to which a student has learned and is able to apply the defined knowledge and skills at each tested grade level. Every TAKS test is directly aligned to the Texas Essential Knowledge and Skills (TEKS).



Spanish TAKS

In 1994 the State Board of Education (SBOE) adopted a plan to develop Spanish-version assessments for grades 3–6 in order to evaluate the academic skills of English language learners (ELLs), also referred to as limited English proficient (LEP) students, who receive academic instruction in Spanish while they learn English. These assessments were incorporated into the state testing program beginning in 1996. In 1999 the 76th Texas Legislature enacted legislation mandating the inclusion of Spanish-version tests for grades 3–6 in the new state assessment program.

In the 2008–2009 school year, the TAKS testing program included Spanish versions of all TAKS tests administered at grades 3–6, including grades 3–6 reading, grades 3–6 mathematics, grade 4 writing, and grade 5 science. The English and Spanish versions of TAKS assess the same test objectives and TEKS student expectations. In 2009, the 81st Texas Legislature eliminated the grade 6 Spanish version of TAKS, effective in the 2009–2010 school year. Spanish versions of the tests remain available for grades 3–5.

TAKS (Accommodated)

TAKS includes a form called TAKS (Accommodated) for students receiving special education services who meet the eligibility requirements for specific accommodations. This is a general assessment based on the same grade-level academic achievement standards as TAKS. The TAKS (Accommodated) form includes format changes (larger font, fewer items per page) and contains no embedded field-test items. TAKS (Accommodated) is available for all English- and Spanish-version TAKS tests, including retest opportunities for Student Success Initiative (SSI) grades and subjects. Retest opportunities for students taking TAKS (Accommodated) exit level assessments are also offered.

Linguistically Accommodated Testing (LAT)

LAT is an assessment process for eligible immigrant ELLs who are granted a LEP exemption under state law but are required to be assessed in certain grades and subjects under federal law. The LAT process enables eligible immigrant ELLs to be assessed with linguistic accommodations that help them better understand the language used on the tests.

LAT administrations are available for

- Grades 3–8 reading and grade 10 English language arts (ELA)
- Grades 3–8 and 10 mathematics
- Grades 5, 8, and 10 science



LAT administrations are available for all LEP-exempt ELLs in these grades and subjects, including LEP-exempt ELLs receiving special education services for whom TAKS, including TAKS (Accommodated), and TAKS–Modified (TAKS–M) are appropriate. Spanish-version LAT forms are available in grades 3–6 for TAKS, including TAKS (Accommodated).

The required assessments by grade level for TAKS, TAKS (Accommodated), and LAT are illustrated in Table 3.

Table 3. 2008–2009 TAKS Assessments

2008–2009 TAKS Assessments	
Grade	Test Administration
Grade 3 (English and Spanish)	Mathematics and Reading
Grade 4 (English and Spanish)	Writing, Mathematics, and Reading
Grade 5 (English and Spanish)	Mathematics, Reading, and Science
Grade 6 (English and Spanish)	Mathematics and Reading
Grade 7	Writing, Mathematics, and Reading
Grade 8	Mathematics, Reading, Science, and Social Studies
Grade 9	Mathematics and Reading
Grade 3–8 and 10	LAT Mathematics and Reading/English Language Arts
Grade 5, 8, and 10	LAT Science
Grade 10	English Language Arts, Mathematics, Science, and Social Studies
Exit Level	English Language Arts, Mathematics, Science, and Social Studies

Testing Requirements for Graduation

The exit level assessment is a major component of the TAKS testing program. To be eligible to receive a diploma from a Texas public high school, a student is required to pass a total of four subject-area tests: English language arts, mathematics, science, and social studies.

The law further specifies that certain content must be assessed on the exit level tests.

- The English language arts test must include English III and writing.
- The mathematics test must include Algebra I and geometry.
- The science test must include biology and integrated physics and chemistry.
- The social studies test must include early American and U.S. history.

The exit level test assesses a student's level of academic preparation for graduation from high school as well as his or her readiness to enroll in an institution of higher education. To address these requirements, the Texas Higher Education Coordinating Board (THECB) established a Higher Education Readiness Standard for exit level TAKS English language arts and mathematics in spring 2004.



Test Development

Maintaining a student assessment system of the highest quality involves completing a set of tasks that must be executed during the test development process. The procedures described in [chapter 2](#) outline the test development process for the TAKS program. The Texas Education Agency (TEA) relies heavily on input from educators and assessment specialists to ensure an equitable and accurate measure of learning for Texas public school students.

Detailed information regarding each step of the test development process is in [chapter 2](#).

Item Development Approach for Spanish TAKS

The Spanish versions of TAKS include items that originate in Spanish and transadapted items—that is, items translated from English and adapted as necessary to ensure cultural and linguistic accessibility.

- Items and passages for writing assessments originate in Spanish due to differences in English and Spanish grammar, mechanics, and usage.
- The approach for reading assessments has gradually shifted from transadaptation to passages and items that, for the most part, originate in Spanish.
- The majority of mathematics and science items are transadapted.

Pearson and Tri-Lin work with TEA staff and Texas educators to develop the test materials. Bilingual educators review all transadapted and independently developed test items before and after field testing in accordance with the educator item-review process used for TAKS tests as described in [chapter 2](#).

Spanish-English TAKS Alignment

Alignment of the English and Spanish TAKS tests is reinforced by the following:

- The development and review processes for the English and Spanish tests are parallel, in that
 - item reviews for English and Spanish include judgments related to each item's alignment to the TEKS content standards, and
 - field-test data reviews for English and Spanish items include technical training so that committees choose only psychometrically sound items to be added to the item banks.
- Item writing and review processes for transadapted items are implemented to ensure linguistic and cultural appropriateness in each language and parallel interpretations of grade-level performance expectations.



- The blueprints for the English and Spanish tests are the same, including the number of items assessing each objective and the number of items on the tests as a whole.
- In selecting items for the English and Spanish tests, the test constructors collaborate and adhere to the same test-construction guidelines for the range of item content and cognitive complexity.
- Spanish-speaking TEA and contractor staff participate in annual item-review meetings held for new English test items. The involvement of both English and Spanish staff in discussions about how best to assess the TEKS maintains the strong alignment between the English and Spanish tests.
- Parallel English and Spanish test specifications are published in information booklets written for each grade and subject.

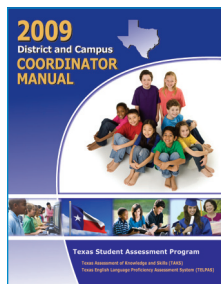
Additionally, when the standards for TAKS were established in 2002, standard-setting panels reviewed both the English and Spanish transadapted tests with the goal of establishing comparable achievement standards.

Training

Test administration procedures must be followed exactly so that all individuals eligible for testing have an equal opportunity to demonstrate their academic achievement. To meet this goal, TEA develops and provides instruction to train all testing personnel across the state on test administration procedures. Each year preparation for test administration begins with a training session for testing coordinators and other personnel from each of the 20 regional education service centers (ESCs) as well as district testing coordinators from some of the state's largest districts. Using information and materials provided in the TEA training session, the ESC regional testing coordinators train the district coordinators in their respective regions. District coordinators train campus testing coordinators, who are responsible for training any personnel participating in the assessment program.

For each test administration in the 2008–2009 school year, ESC personnel and district coordinators were provided a district testing coordinator packet containing the information and materials necessary for overseeing test administrations, including coordinator and test administrator manuals that provided an overview of the statewide testing program. Separate packets and manuals were provided for TAKS, including TAKS (Accommodated), TAKS–M, Texas English Language Proficiency Assessment System (TELPAS), and Texas Assessment of Academic Skills (TAAS) exit level administrations.

District and Campus Coordinator Manual



The *2009 District and Campus Coordinator Manual* explains the responsibilities of district and campus testing coordinators for the TAKS, including TAKS (Accommodated), TAKS–M, and TELPAS testing programs. This manual encompasses preparation and administration procedures for each program for the 2009



calendar year. Separate test administrator manuals and field-test administrator manuals are distributed to districts prior to the first administration for each grade.

Test Administrations

Overview

During the 2008–2009 school year, the English-version TAKS, including TAKS (Accommodated), was administered to approximately 2,927,000 students; the Spanish-version TAKS, including TAKS (Accommodated), to approximately 55,000 students; and TAKS–Modified (TAKS–M) to approximately 147,000 students.

Districts administered the TAKS, including TAKS (Accommodated), tests to eligible examinees as indicated below.

FALL 2008

October: ELA, mathematics, science, and social studies retests at exit level (online and paper)

SPRING/SUMMER 2009

March: Writing at grades 4 and 7 (English) and grade 4 (Spanish version)

Reading at grades 3, 5, 8, and 9 (English) and grades 3 and 5 (Spanish version)

ELA at grade 10 and exit level

ELA, mathematics, science, and social studies retests at exit level (online and paper)

April/May: Mathematics at grades 3–10 and exit level (English) and grades 3–6 (Spanish version)

Mathematics at grades 3–8 and 10 (LAT) and grades 3–6 (LAT Spanish)

Reading at grades 4, 6, and 7 (English) and grades 4 and 6 (Spanish version)

Reading at grades 3–8 (LAT) and grades 3–6 (LAT Spanish)

Reading retests at grades 3, 5, and 8 (English) and grades 3 and 5 (Spanish version)

ELA at grade 10 (LAT)

Science at grades 5, 8, 10 and exit level and grade 5 (Spanish version)

Science at grades 5, 8, and 10 (LAT) and grade 5 (LAT Spanish)

Social Studies at grades 8, 10 and exit level

ELA, mathematics, science, and social studies retests at exit level (online and paper)

Mathematics retests at grades 5 and 8 (English) and grade 5 (Spanish version)

June/July: Reading retests at grades 3, 5 and 8 (English) and grades 3 and 5 (Spanish version)
 Mathematics retests at grades 5 and 8 (English) and grade 5 (Spanish version)
 ELA, mathematics, science, and social studies retests at exit level (online and paper)



Make-up Testing

BACKGROUND

In 2003, TEA received numerous requests from district superintendents to institute make-up testing. Participation requirements for making adequate yearly progress (AYP) under the federal No Child Left Behind Act (NCLB) are stringent at 95%. These requirements are particularly challenging to meet at the high school level, but middle and elementary schools are also affected. Although other changes, such as a refinement of the definition for participation rate that takes into account small numbers, did in part address superintendents' concerns, there was still a strong desire for make-up testing.

SPRING 2009 MAKE-UP TESTING

For the 2008–2009 school year, make-up tests were allowed for the TAKS, including TAKS (Accommodated), subject-area tests and grade levels that were included in the calculation of AYP. This policy change was implemented in the 2003–2004 school year and marked a significant departure from previous administration procedures that required, with few exceptions, all students in the same grade to take the same subject-area test at the same time. The intention of the policy change was to be responsive to the requirement of federal law without jeopardizing the integrity and validity of the Texas assessment program. Major features of the make-up test policy include the following:

- The tests involved were those included in the AYP calculation: reading at grades 3–8, ELA at grade 10, and mathematics at grades 3–8 and grade 10. Spanish-version tests were also included.
- A separate test form for the grade 10 ELA make-up test was administered on an assigned day (March 5, 2009).
- The regular testing schedule was maintained, with districts allowed to give make-up tests during the remainder of the week, including Saturday, only to those students who were absent on the regularly scheduled test administration day.
- No make-up tests were allowed for the writing, science, and social studies tests, or for any subject-area test at grade 9 and exit level.

Out-of-District Testing

For the summer TAKS assessments (grade 3 reading, grades 5 and 8 reading and mathematics, and all subjects at exit level), students who are unable to retest at their home district's designated test site may test out of district. Enrolled out-of-district students are required to complete the out-of-district registration form, and exit level students must also present picture identification. For example, a student from Houston



who spends the summer in Dallas and who wants to test in Dallas is required to register to test out-of-district. Out-of-district also applies to students who are part of the Texas Tech or University of Texas high school programs.

A campus or district must accommodate the request of an out-of-district student to participate in the third administration of an SSI test (reading in grade 3; reading and mathematics in grades 5 and 8 in 2008–2009) if that campus or district is testing one or more local students on the applicable test and if the student has registered in advance for out-of-district testing. A district may choose to test walk-in students or out-of-district students who register after the deadline, but the district is not required to do so.

Out-of-School Testing

Individuals who have completed all graduation requirements but have not passed all four sections of the exit level TAKS test (or, if applicable, all three sections of the TAAS exit level test—offered in March, April, and July) and who are no longer enrolled in a district may retake the appropriate sections each time the test is administered. Districts are required to publicize the designated dates, the precise location(s) and times of testing, and the actions that out-of-school individuals interested in retesting must take to ensure access to the testing areas and to testing materials.

A district may select out-of-school testing site(s) within the district or collaborate with an ESC or neighboring district to test out-of-school examinees at an alternate testing site. Districts are provided with registration packets so that individuals who are no longer enrolled in school may register for the exit level test. Out-of-school examinees may register online or by mail. Registered individuals receive an admission letter informing them of the date, time, and location of testing. Districts may accept walk-in examinees, as long as the examinee can provide proper identification. Test results are mailed to the individual and to the district from which he or she is eligible to receive a diploma.

Testing Accommodations

Overview

Accommodations are practices and procedures that provide equitable access to grade-level curriculum during instruction and assessment. This includes general education students with special needs, students who are LEP-exempt and eligible for linguistic accommodations, as well as students with disabilities who receive special education services. Accommodations do not reduce learning expectations. Therefore, their use should not replace the teaching of subject-specific knowledge and skills as outlined in the state curriculum for each grade. Certain accommodations may be more useful or appropriate than



others depending on the subject assessed, age of the student, and degree of the student's special needs. Not all accommodations appropriate for instructional use may be appropriate for use on a standardized assessment.

Accommodations are provided on an individual basis and take into consideration the needs of each student. It is neither appropriate nor effective to provide "one size fits all" accommodations to students. For example, one student with a visual impairment might use large-print instructional materials while another would benefit from a magnification device. In most cases, accommodations are unique to a student and should not be provided to an entire group of students, such as those in the same class or disability category.

Accommodations Categories

Accommodations are categorized in four ways: presentation (P), response (R), setting (S), and timing and scheduling (T). Linguistic accommodations specific to the second language learning needs of ELLs are addressed in the next section.

- Presentation accommodations allow students to access information in alternate formats other than regular print. These alternate modes of access may include auditory, multi-sensory, tactile, and visual modes.
- Response accommodations allow students to complete activities, assignments, and assessments using methods other than paper-and-pencil or machine-scorable responses. Response accommodations may also include allowing students to solve or organize problems using some type of supplemental aid.
- Setting accommodations change the location in which a test or assignment is given or the conditions of the assessment setting.
- Timing and scheduling accommodations increase the standard length of time to complete an assignment or assessment or possibly change the way the time is organized.

Linguistic Accommodations

TEA has implemented a process of providing linguistic accommodations to students who by state law meet the criteria for a LEP exemption from reading/ELA and mathematics testing in grades 3–8 and 10 and science testing in grades 5, 8, and 10. This assessment process is known as linguistically accommodated testing (LAT), and is available for administrations of TAKS, including TAKS (Accommodated), and TAKS–M. LAT was instituted to meet NCLB requirements for including exempted recent immigrant LEP students in federally required assessments and AYP accountability measures. LAT administrations were implemented in spring 2005 for mathematics, spring 2007 for reading/English language arts, and spring 2008 for science.

The federal ELL assessment requirements differ slightly for mathematics and science versus reading/ELA. All LEP-exempt recent immigrants are required to participate in LAT administrations of mathematics and science in AYP grades. For reading/ELA,



however, first-year LEP-exempt immigrants take just the reading component of TELPAS. All other LEP-exempt recent immigrants must take LAT reading/ELA assessments in AYP grades.

The linguistic accommodations used in the LAT process are categorized according to whether they provide indirect or direct linguistic support. Indirect support accommodations are built into the test administration procedures for all LAT students. The indirect support accommodations for LAT administrations of mathematics, science, and reading/ELA tests include clarification of test directions and breaks at the request of the student. In addition, students participating in LAT reading/ELA administrations are assessed over 2 days.

Allowable accommodations providing direct linguistic support for LAT mathematics and science include linguistic simplification, reading assistance, bilingual dictionaries, bilingual glossaries, oral translation, and use of Spanish-version and English-version tests side by side. Secure LAT linguistic simplification guides are provided to test administrators for use with the linguistic simplification accommodation for TAKS, including TAKS (Accommodated). These guides provide suggested linguistic simplifications and delineate which subject-area terms may not be simplified. The accommodations made during LAT administrations must not include explanations, definitions, pictures, gestures, or examples related to mathematical or scientific terminology, concepts, or skills assessed because such assistance would invalidate the test results.

Allowable accommodations providing direct linguistic support for LAT reading/ELA include bilingual dictionaries, English dictionaries, reading aloud a word or phrase, reading aloud the entire test item, oral translation of a word or phrase, and clarification of a word or phrase. During LAT reading administrations students must not be provided any direct or indirect assistance or reinforcement that identifies or aids in the identification of the correct response to a test item.

Decisions concerning accommodations that provide direct linguistic support must be made and documented by the language proficiency assessment committee (LPAC). In the case of a LEP student receiving special education services, decisions are made by the student's admission, review, and dismissal (ARD) committee in conjunction with the LPAC. The decisions must be based on the individual needs of the student and whether the accommodation is used routinely in instruction and testing.

In addition to linguistic accommodations, students taking LAT administrations may be eligible to receive accommodations related to a disability or other special need.



More information about LAT accommodations may be found in the [Grades 3–8 and 10 Linguistically Accommodated Testing \(LAT\) Test Administrator Manual](#). More information about exemption eligibility criteria may be found in the [LPAC Decision-Making Process for the Texas Assessment Program](#) manual.

Dyslexia Accommodations—TAKS Reading

In spring 2004 a series of studies was conducted to evaluate the effectiveness of a group of accommodations on the performance of elementary students who have been identified with dyslexia on the TAKS reading test. This study focused on the following three accommodations that might benefit these students on the TAKS reading test:

- orally reading all proper nouns associated with each passage before students began individual reading,
- orally reading all questions and answer choices to students, and
- extending the testing time over a two-day period.

These three accommodations were “bundled,” meaning they were provided together. The purpose of the study was not to determine which accommodation was most effective, but whether these bundled accommodations leveled the playing field for students who have been identified with dyslexia or who have difficulty reading words in isolation, allowing them to demonstrate their best reading performance without invalidating the test as an accurate measure of reading comprehension. The three bundled accommodations were first available in spring 2006 for eligible students in grades 3, 4, and 5. These accommodations were used to administer both English and Spanish version TAKS reading tests, including all three SSI tests at grades 3 and 5.

In spring 2006 an additional study was conducted to evaluate the effectiveness of the bundled accommodations for older students with dyslexia on the TAKS test. To determine whether the bundle of accommodations shown to be effective with grade 3 students was also effective with older students, an accommodated assessment was administered to students in grades 7 and 11 who were in dyslexia or special education programs. In the grade 7 study, test administrators administered the reading test in three formats: with all three accommodations as a bundled package, with the first two accommodations only, or in the standard manner without accommodations. In grade 11 the test was administered with all three accommodations as a bundled package or in the standard manner. Study results at grade 7 supported extending the bundled accommodations (including the administration over two days) to students in middle school who show clear evidence of decoding problems. Study results at grade 11 were not clear and indicated that more research is needed on accommodations for high school students. See Appendix 7 in the [2005–2006 Technical Digest](#) for more information about the study.

Beginning in spring 2007, the three bundled accommodations were available for eligible students in grades 6, 7, and 8, as well as students in grades 3, 4, and 5.



Oral Administration

Oral administration is an accommodation in which test questions and answer choices for mathematics, science, and/or social studies tests may be read aloud or signed to eligible students taking TAKS, including TAKS (Accommodated), or TAKS–M. Additional information regarding oral administration, including eligibility requirements, is in the [2008–2009 Accommodations Manual](#).

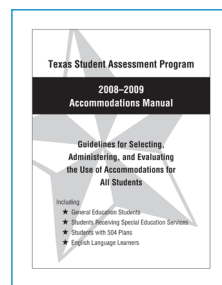
Students with Visual Impairments

Large-print test booklets are available for all TAKS (LAT included), TAKS (Accommodated), and TAKS–M operational administrations.

Braille test booklets are available for TAKS, TAKS (Accommodated), and TAKS–M operational administrations. Test administrators receive specific instructions for testing visually impaired students with braille or large-print test booklets. Districts are instructed to indicate on the answer document whether a student used a large-print or braille version of a test.

Large-print and braille test booklets are not available for field-test administrations.

Accommodations Manual



More information about testing accommodations for the Texas assessment program can be found in the [2008–2009 Accommodations Manual](#).

Educational Materials Required for Testing—TAKS, TAKS (Accommodated), and TAKS–M

DICTIONARIES AND THESAURUSES

English-language dictionaries and thesauruses must be provided to examinees for

- the written composition portion of the grade 7 writing test,
- the entire grade 9 reading test, and
- the reading and written composition portion of the grade 10 and 11/exit level ELA tests.

There must be at least one dictionary for every five examinees; it is also recommended that there be one thesaurus for every five examinees, if possible. Examinees may also use a combination dictionary/thesaurus. An English as a



second language (ESL) dictionary, which uses simple English and pictures to define words, may be provided for LEP students. A dictionary or thesaurus may not be used on the revising and editing section of either the grade 7 writing test or the TAKS ELA tests. The grade 7 writing test and the ELA tests contain two sealed sections; the first section contains the written composition portion (grade 7) or the written composition and reading portion (TAKS grades 10 and exit level), and the second sealed section contains the revising and editing portion. After an examinee completes the first sealed section, the test administrator collects the examinee's dictionary and thesaurus. The examinee then may break the seal on the second sealed section and begin the revising and editing portion of the test.

CALCULATORS

For the mathematics tests at grades 9, 10, and 11/exit level, districts must provide each examinee with a graphing calculator for the entire administration. Students may use their own calculators instead of those provided by the district. Any kind of graphing calculator may be used except one with a typewriter-style keypad (known as QWERTY) or one that includes a computer algebra system (CAS). All types of memory, including standard memory, RAM, ROM, and flash ROM, must be cleared to factory default both before and after testing. In addition, any programs or applications must be removed or disabled prior to the test administration.

Calculators may also be used on the science tests at grade 10 and 11/exit level. Students must have access to four-function, scientific, or graphing calculators. Again, students may use their own calculators instead of those provided by the district. There must be at least one calculator for every five students. If students share a calculator, the memory must be cleared after each student uses it. The guidelines for kinds of graphing calculators, clearing of memory, and removal of programs and applications for the science tests are the same as those listed for mathematics.

Online Testing

THE ONLINE TEST DELIVERY SYSTEM

The online testing described in this section was delivered using Pearson's eMeasurement system. This system provides secure online tools for authoring, delivering, and reporting results of tests; meets the stringent security requirements of the Texas assessment program; and protects the integrity of test items and student data.

The eMeasurement system enables test administrators to control:

- which test will be administered,
- when it will be administered,
- the number of testing sessions, and
- which students will be assigned to each session.



Using eMeasurement's test administrator's screen, a test administrator may monitor each student's current status while the test is in progress. Once a student has exited an online test, the test session must be resumed by the test administrator before the student will be allowed to reenter the test.

Further information about the eMeasurement system, including an overview of the system, information on delivery and reporting, and a list of frequently asked questions, can be found on [Pearson's Texas State Assessments website](#).

TAKS Exit Level

In addition to paper administrations, in 2008–2009 the TAKS exit level tests were offered online as live administrations in English language arts, mathematics, social studies, and science. Participation in the online administrations was voluntary and districts could register at the district, campus, grade, and subject levels. Table 4 gives information about the scope of the live online TAKS administrations.

Table 4. 2008–2009 TAKS Online Test Administrations

2008–2009 TAKS Online Test Administrations					
Grade	Subjects	Test Date(s)	Districts	Campuses	Tests Delivered
Exit Level	English Language Arts	October 21, 2008	112	195	3,946
Exit Level	Mathematics	October 22, 2008	132	220	7,750
Exit Level	Science	October 23, 2008	138	224	7,408
Exit Level	Social Studies	October 24, 2008	125	210	3,638
Exit Level	English Language Arts	March 3, 2009	90	134	1,357
Exit Level	Mathematics	March 4, 2009	110	156	3,402
Exit Level	Science	March 5, 2009	108	158	3,291
Exit Level	Social Studies	March 6, 2009	85	131	1,143
Exit Level	English Language Arts	April 28, 2009	64	94	547
Exit Level	Mathematics	April 29, 2009	85	123	2,015
Exit Level	Science	April 30, 2009	82	125	1,762
Exit Level	Social Studies	May 1, 2009	64	98	407
Exit Level	English Language Arts	July 14, 2009	91	137	2,170
Exit Level	Mathematics	July 15, 2009	105	159	5,767
Exit Level	Science	July 16, 2009	107	162	4,487
Exit Level	Social Studies	July 17, 2009	89	130	1,159



For each live TAKS administration, the online and paper versions of the tests included identical items. Because the online tests were live and counted in the same manner as the results for students who took the paper versions, it was necessary to conduct research studies to ensure that the paper and online results were comparable and did not advantage or disadvantage students who tested in either mode.

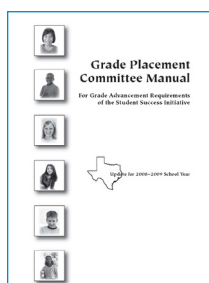
The comparability analyses indicated mode-of-administration effects for several TAKS tests. In all cases where a mode effect was found, an alternate raw-to-scale score conversion was used for students testing online.

Student Success Initiative

The Student Success Initiative (SSI) includes three initiatives that provide a system of academic support to help ensure achievement on grade level in reading and mathematics so every student can succeed in school. The SSI incorporates a grade advancement component adopted by the Texas Legislature in 1999. Until the 2009–2010 school year, the law tied promotion to performance on state-mandated assessments in reading at grade 3, and reading and mathematics at grades 5 and 8. The law applies to students who take TAKS, TAKS (Accommodated), and TAKS–M tests in English or Spanish. The law does not apply to ELLs who are exempt on the basis of limited English proficiency and qualify for a LAT administration.

Students must be allowed at least three testing opportunities to pass a test under the SSI grade advancement requirements. Except as follows, a student may advance to the next grade level only by passing these tests. If a student has not passed after three opportunities and a parent submits an appeal, the student may be promoted by unanimous decision of a grade placement committee (GPC), consisting of the principal or the principal's designee, the student's parent or guardian, and the student's teacher for the subject area tested. The GPC may advance a student only if it determines that he or she is likely to perform at grade level by the end of the next year after accelerated instruction.

The academic support provided under the SSI takes many forms. Students who are identified as being at risk of failing an SSI assessment must receive extra instruction prior to the first test administration. Students who do not pass an SSI assessment must be provided additional instruction before each subsequent testing opportunity. In addition, a TAKS study guide was provided by the state to any student who did not meet the standard on a TAKS assessment. Funding and instructional support for the SSI also were provided through the Texas Reading Initiative and the Texas Math Initiative.



More information about SSI requirements for TAKS, including TAKS (Accommodated), can be found in the [2008–2009 Grade Placement Committee Manual](#).



Scores and Reports

The variety of reports available for each assessment instrument in the Texas assessment program are described in this section.

Description of Scores

For a detailed description of how test scores are derived, see [chapter 2](#).

RAW SCORE

The raw score is the number of items answered correctly on a subject-area test (for example, TAKS grade 4 reading). By itself the raw score has limited utility; it can be interpreted only in reference to the total number of items on a subject-area test, and raw scores should not be compared across tests or administrations. The raw score is provided for all English- and Spanish-version TAKS, including TAKS (Accommodated).

SCALE SCORE

A scale score is a conversion of the raw score onto a “scale” that is common to all test forms for that assessment. Scale scores allow direct comparisons of student performance between specific sets of test questions from different test administrations.

Report Formats

Two types of reports are provided for the various testing programs: standard and optional. Standard reports are provided automatically to districts. Information contained in standard reports is sufficient to satisfy mandatory reporting requirements. To receive optional reports, which present student performance data in additional formats and, in some instances, in greater detail, a district must have completed the Optional Reports Order Form and returned it with the scorable materials. Generally districts are required to pay a nominal fee for each optional report requested.

Reports that include “Confidential” in the title contain student-level results. These reports are available for authorized users. All other reports present test results in an aggregated format and are considered public information.

TAKS and TAKS (Accommodated)

STANDARD REPORTS

Districts received the standard reports described below for TAKS and TAKS (Accommodated) in 2008–2009.

**CONFIDENTIAL STUDENT REPORT**

A separate Confidential Student Report (CSR) is provided for each student for whom a TAKS answer document or online record was submitted. Test results are shown for each subject area tested for that grade. Information from this report is useful when reporting test results to students and parents. LAT information is included in these reports.

CONFIDENTIAL STUDENT LABEL

An adhesive student label is provided for each student for whom a TAKS answer document or online record was submitted. Test results are shown for each subject tested, and these labels should be placed on the individual student's permanent record. LAT information is included in these reports.

CONFIDENTIAL LIST OF STUDENTS' RESULTS

The Confidential List of Students' Results is available for each grade tested at each campus and lists every student for whom a TAKS answer document or online record was submitted. This report provides each student's Met Standard and Commended Performance results for each subject area tested. LAT information is included in these reports.

CONFIDENTIAL CAMPUS ROSTER—ALL STUDENTS

The Confidential Campus Roster is available for each grade tested at each campus and lists every student for whom a TAKS answer document was submitted. This report provides detailed student-level results for each subject area tested. The information in this report may be useful for placement and program evaluation decisions. Rosters are provided for TAKS English and TAKS Spanish. LAT information is included in these reports.

CONFIDENTIAL CAMPUS ROSTER—STUDENTS NOT MEETING STANDARD

This Confidential Campus Roster is provided for each grade tested at each campus and for each subject area, and lists every student who did not meet the passing standard in that subject area. Students whose answer documents were marked "ABSENT" or "OTHER" are also included on this roster. Students taking the reading/ELA, mathematics, or science tests with linguistic accommodations who did not meet the passing standard are not included on this roster.

CUMULATIVE SUMMARY REPORT

A TAKS Cumulative Summary Report is provided for each district and campus for grades 3, 5, and 8 reading, and grades 5 and 8 mathematics following both the second and third administrations of the year. This report contains cumulative pass rate information for each demographic group tested. This report is only provided for TAKS. At grades 3 and 5, English and Spanish results are reported together.



The reading reports are divided into four sections: March Cohort, April Results for Students in March Cohort, June/July Results for Students in March Cohort, and Cumulative. The mathematics report is organized in a parallel fashion, with the April administration serving to establish the cohort. For convenience, only the reading report is explicitly described here.

The first section of the reading reports, the March Cohort, provides the results for all students tested in March. These results will correspond to the information reported on the TAKS Summary Reports that were sent to districts following the March administration.

The second section, April Results for Students in March Cohort, represents the April results for students who were tested in April and submitted a TAKS answer document in March. The third section, July results for Students in March Cohort, represents the July results for students who were tested in July and submitted a TAKS answer document in March.

The Cumulative section of the reports combines the results for all students tested in March and students in the March cohort who were tested in April and/or July.

The March results for a student who moves to a different district after the March administration will be included in the cumulative results for the original district and campus. This student will not be included in the district and campus cumulative reports where the student tested in April.

The March results for a student who moves to another campus within the same district prior to the April administration are still included in the cumulative results for the original campus. In the district report, this student is also included in the April Results for Students in March Cohort section.

Students are grouped in each demographic category based on the data submitted on the March answer document. The April results for students in the March cohort are included only if the student identification information on the April answer document matches the information submitted in March.

Students who move to a campus from another Texas public school following the March administration will be subject to the SSI requirements but will not be included in the cumulative pass rate results for that campus.

SUMMARY REPORT

A Summary Report is provided for each TAKS grade tested at each district and campus and contains aggregated information about every student for whom an answer document was submitted. These reports have two sections: Test Performance, which describes objective-level and summary results for each subject area tested; and Group Performance, which describes summary results of the performance of each demographic group for each subject area tested. The “All Students Not In Special Education” report combines students coded as



not in special education and students for whom no information was provided as to special education status. Test results of students taking the make-up form of the grade 10 English language arts test and students taking the braille version of the grade 9 reading and the grade 10 and exit level English language arts tests are not included in the objective-level data in this report. Results of students taking the reading/ELA, mathematics, or science tests with linguistic accommodations are also not included.

DEMOGRAPHIC PERFORMANCE SUMMARY REPORT

A TAKS Demographic Performance Summary, which contains aggregated information about every student tested, is provided for each TAKS grade and subject area tested at each district and campus. This report describes results of the overall and objective level performance for each demographic or program group. Separate summary reports will be generated for English- and Spanish-version tests. Three standard Demographic Performance Summary reports are available: “All Students,” “All Students Not In Special Education,” and “Special Education Students.” The “All Students Not In Special Education” report combines students coded as not in special education and students for whom no information was provided as to special education status. Test results of students taking the make-up form of the grade 10 English language arts test and students taking the braille version of the grade 9 reading and the grade 10 and exit level English language arts tests are not included in the objective-level data in this report. Results of students taking the reading/ELA, mathematics, or science tests with linguistic accommodations are also not included.

WRITTEN PERFORMANCE SUMMARY REPORT

The TAKS Written Performance Summary Report is provided for each district and campus and shows the number and percentages of students receiving each rating for the written composition and the short answer responses. The number of papers in each analytic category is also listed. Written compositions with a rating greater than 1 are not scored analytically. At grade 4 separate summary reports will be generated for English- and Spanish-version tests. Three standard Written Performance Summary Reports are provided: “All Students,” “Special Education Students,” and “All Students Not in Special Education.” The “All Students Not in Special Education” report combines students coded as not in special education and students for whom no information was provided as to special education status. Test results of students taking the make-up form of the grade 10 English language arts test and students taking the braille version of the grade 9 reading and the grade 10 and exit level English language arts tests are not included in this report. Results of students taking the grade 10 English language arts test with linguistic accommodations are not included.

ITEM ANALYSIS SUMMARY REPORT

This report shows the item number, the objective measured by the item, and the percentage of students selecting each possible answer choice for that test item. Three standard Item Analysis Summary Reports are provided: “All Students,” “All Students Not in Special Education,” and “Special Education Students.” The “All Students Not in Special Education” report combines students coded as not in special education and students



for whom no information was provided as to special education status. The Item Analysis Summary Report may be used in conjunction with the 2008–2009 released TAKS tests. For TAKS grades 3–6, English and Spanish results are reported separately.

ONLINE PRELIMINARY CONFIDENTIAL CAMPUS ROSTER—ALL STUDENTS

These rosters will provide early results for the March and October exit level retests and will show individual student performance data for mathematics, social studies, and science. Preliminary rosters will be available on the Online Data Management website approximately three weeks after the test administrations.

ONLINE PRELIMINARY CONFIDENTIAL CAMPUS ROSTER—STUDENTS NOT MEETING STANDARD

These rosters will provide early results for the March and October exit level retests and will show individual student performance data for mathematics, social studies, and science. Preliminary rosters will be available on the Online Data Management website approximately three weeks after the test administrations.

ONLINE EXIT LEVEL PRELIMINARY ROSTERS (OCTOBER AND MARCH ADMINISTRATIONS)

These rosters will provide early results for the March and October exit level retests and will show individual student performance data for mathematics, social studies, and science. Preliminary rosters will be available on the Online Data Management website approximately three weeks after the test administrations.

Optional Reports

Optional TAKS reports were available in 2008–2009 that included the Confidential Electronic Individual Student Record File, Electronic Campus and District Summary Data File, Confidential Campus Roster—Program and Demographic Groups, Summary Report for LEP and non-LEP Students, English and Spanish Performance Summary, and Confidential Images of Essays and Open-Ended Responses.

CONFIDENTIAL ELECTRONIC INDIVIDUAL STUDENT RECORD FILE

This file contains individual data records for each student for whom an answer document was submitted. The student record includes identification and demographic data as well as subject-area scores. Objective-level data are included. In addition, item-level data reported for each student record include the objective measured by each test item, which answer choice the student selected for the item, and the correct answer. LAT information is included in these reports.

**ELECTRONIC CAMPUS AND DISTRICT SUMMARY DATA FILE**

This file contains the data from the TAKS district and campus summaries. Data for each subject area, including objective-level information, are provided. Summary data are provided for all students, all students not in special education, special education students, LEP students, and non-LEP students.

CONFIDENTIAL CAMPUS ROSTER—PROGRAM AND DEMOGRAPHIC GROUPS

This report contains information on each grade tested at each campus and lists every student for whom an answer document was submitted. This report provides detailed student-level results for each subject area tested. Unlike the standard Confidential Campus Roster—All Students, which includes results for every student for whom an answer document was submitted, the Optional Confidential Campus Roster provides separate reports for various demographic and program groups. Students tested with linguistic accommodations are included as separate groups on this roster. The information in this report may be useful for placement and program evaluation decisions. This report is only provided for TAKS. LAT information is included in these reports.

SUMMARY REPORT FOR LEP AND NON-LEP STUDENTS

These reports are provided for each TAKS grade tested at each district and campus and contain aggregated information about students who are coded as LEP or non-LEP (non-LEP monitored or other non-LEP). These reports are only provided for TAKS, and English and Spanish results are reported separately. These reports have two sections: Test Performance, which describes objective-level and summary results for each subject area tested; and Group Performance, which describes summary results of the performance of each demographic group for each subject area tested. Test results of students taking the make-up form of the grade 10 English language arts test and students taking the braille version of the grade 9 reading and the grade 10 and exit level English language arts tests are not included in the objective-level data in this report.

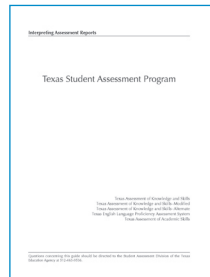
SUMMARY REPORT FOR ENGLISH AND SPANISH PERFORMANCE

This report shows the combined results of English and Spanish testers (grades 3–6) by subject. Only the “All Students” category will be provided. This information is provided at the district and campus level.



CONFIDENTIAL IMAGES OF ESSAYS AND SHORT-ANSWER RESPONSES

This optional service will provide an image of each student's response to the essay and/or short-answer items (TAKS grades 4, 7, 9, 10, and exit level). These images will be available in PDF format on CD-ROM or in print form and will include the student's identification information (PEIMS ID, name, and date of birth), essay/short-answer response scores, and the image of the student's response(s). If the PDF option is ordered, a separate CD-ROM will be provided for each campus. Each grade within the campus will be contained in a separate file on the CD-ROM. The image essay service will not be available for the grade 10 ELA LAT test, the TAKS–M writing test, or the TAKS–M ELA test.



For more information see the TEA publication [Interpreting Assessment Reports](#).

Parent Brochures

To assist districts with the task of helping parents understand their child's TAKS test results, TEA's Student Assessment Division produces a series of brochures titled *Understanding the Confidential Student Report—A Guide for Parents*. Each grade-level brochure provides a brief summary of the TAKS program, explains a sample CSR so parents can understand their child's test report, and gives a brief summary of each TAKS test objective for each subject area tested. The brochures, developed in both English and Spanish, are provided to districts each spring for distribution with individual student TAKS performance results. A flyer for parents explaining the LAT process is available in English and Spanish on [TEA's Student Assessment Division website](#).



Standard Setting

Standard setting is the process of relating levels of test performance directly to what students are expected to learn as expressed in the statewide curriculum by establishing cut scores that define performance categories like “Met Standard” and “Commended Performance.” Through the standard-setting process, cut scores (or the number of questions a student must answer correctly) are determined to reflect the level of performance a student must demonstrate to match the performance level descriptors for each TAKS test. The performance standards for TAKS were originally set in 2002 and 2005.

When a set of performance standards has been adopted for an assessment, the standards apply as long as they are judged to be appropriate for defining student performance levels on the assessment. It is recommended that performance standards be reviewed when a change occurs in the assessment program. Senate Bill 1031 (section 39.036) required TEA to develop a vertical scale for assessing student progress beginning with the 2008–2009 school year for reading and mathematics at grades 3–8. A vertical scale would allow a direct comparison of student test scores across grade levels within a subject (e.g., reading) for the first time with the TAKS assessment. With this change, a standards review was needed to determine if the performance standards across grade levels still made sense when viewed on a vertical scale.

Once the vertical scale had been developed, in October 2008, TEA convened several panels of educators to evaluate the appropriateness of the performance standards on the vertical scale for reading and mathematics at grades 3–8 and to recommend changes to those performance standards (which had originally been set in 2002). The panels recommended changes to the performance standards for certain grades in reading and mathematics so that the standards reflected an appropriate increase in expectations for student performance from grade to grade without lowering student performance expectations. The panels’ recommended changes to the performance standards will go into effect beginning in spring 2010. Student performance for 2009 was reported under the original performance standards.

The vertical scale score for Met Standard and Commended Performance is a different number for each grade and subject. For both TAKS reading and mathematics, these numbers increase from grade to grade. Tables 6 and 7 list the vertical scale scores on TAKS English reading and mathematics and TAKS Spanish reading and mathematics needed to meet the passing standard and to achieve commended performance for 2009 and 2010, respectively. The bolded scale scores indicate where the standards review committees recommended an increase in the performance standards.



Table 5. Current Performance Standards for 2009 and Recommended Standards for 2010 for TAKS English Reading and Mathematics

Current Performance Standards for 2009 and Recommended Standards for 2010 for TAKS English Reading and Mathematics			
		Standards for 2010	
Grade	Subject	New Met Standard	New Commended
3	Reading	483	659
4	Reading	554	725
5	Reading	620	763
6	Reading	644	797
7	Reading	670	829
8	Reading	700	850
3	Math	500	640
4	Math	554	698
5	Math	603	738
6	Math	637	783
7	Math	670	823
8	Math	700	850

Table 6. Current Performance Standards for 2009 and Recommended Standards for 2010 for TAKS Spanish Reading and Mathematics

Current Performance Standards for 2009 and Recommended Standards for 2010 for TAKS Spanish Reading and Mathematics			
		Standards for 2010	
Grade	Subject	New Met Standard	New Commended
3	Reading	503	657
4	Reading	555	694
5	Reading	623	744
6*	Reading	N/A	N/A
3	Math	503	649
4	Math	555	692
5	Math	627	755
6*	Math	N/A	N/A

*Note: 2009 was the last time Spanish versions of TAKS grade 6 tests were offered.



Scaling

Scaling is the statistical procedure used to make test scores easier to interpret and compare across test administrations by placing raw scores on a common scoring metric. As with many of the other programs in the Texas assessment program, the TAKS assessment program uses the Rasch Partial-Credit Model (RPCM) to place test items on the same scale across administrations for a given TAKS assessment. Once performance standards have been set for an assessment, its initial scale is then transformed to a more user-friendly metric to facilitate interpretation of the test scores. Details of the RPCM scaling method used in Texas are provided in [chapter 3](#).

Scale Score

A scale score is a conversion of the raw score onto a “scale” that is common to all test forms for that assessment. Scale scores allow direct comparisons of student performance between specific sets of test questions from different test administrations. In the 2008–2009 school year, the scale scores for most TAKS assessments were derived using scale score transformation constants as was done in prior years. The SBOE established the performance standards for most TAKS tests independently at each grade level and test content area in November 2002. Using the procedures described in the technical overview, a unique scale transformation was then developed in each grade and content area so that the resulting set of scale scores would have the panel-recommended Met Standard performance level cut set at a scale score of 2100 and the panel-recommended Commended Performance level cut set at a scale score of 2400. The linear transformation of the underlying Rasch proficiency level estimate is as follows:

$$SS_j = (\theta_j \times T1) + T2,$$

where SS_j is the scale score for student j , θ_j is the Rasch partial credit model proficiency level estimate for student j , and $T1$ and $T2$ are scale score transformation constants that establish the scale score system so that a scale score of 2100 is the cut score for the Met Standard performance level, and a scale score of 2400 is the cut score for the Commended performance level. Values for $T1$ and $T2$ are provided in Tables 8 and 9 for English and Spanish TAKS assessments, respectively.

Table 7. Scale Score Transformation Constants for the TAKS English Tests

Scale Score Transformation Constants for the TAKS English Tests			
Grade	English	T1	T2
3	Reading	125.89173	1992.23668
3	Mathematics	146.69927	1967.23716
4	Reading	129.42192	1996.07420
4	Mathematics	142.51781	1976.29454
4	Writing	110.88114	1981.33501
5	Reading	155.92516	1954.52183
5	Mathematics	170.35775	1939.18228
5	Science	187.96992	1832.51880
6	Reading	166.38935	1988.85191
6	Mathematics	174.31726	1987.91400
7	Reading	139.08206	1964.53408
7	Mathematics	133.98839	2046.53863
7	Writing	135.59322	2002.82034
8	Reading	153.76730	1948.53921
8	Mathematics	153.68852	2025.61475
8	Social Studies	145.41929	2085.16723
9	Reading	123.21847	1944.27650
9	Mathematics	184.61538	2009.90769
10	ELA	97.06539	1983.74478
10	Mathematics	141.04372	2038.64598
10	Science	160.42781	1996.84492
10	Social Studies	145.20813	2046.85382
11	ELA	113.48162	2017.62369
11	Mathematics	140.58107	2064.71415
11	Science	129.47777	2070.86750
11	Social Studies	126.47555	2093.29680

**Table 8.** Scale Score Transformation Constants for the TAKS Spanish Tests

Scale Score Transformation Constants for the TAKS Spanish Tests			
Grade	Spanish	T1	T2
3	Reading	148.66204	1995.19326
3	Mathematics	146.69927	1968.26406
4	Reading	165.10732	2006.21904
4	Mathematics	198.15059	1923.64597
4	Writing	151.04980	1998.90237
5	Reading	190.23462	1967.02600
5	Mathematics	190.71837	1915.95677
5	Science	189.27455	1841.07256
6	Reading	187.96992	2057.89474
6	Mathematics	202.56583	1970.76300

Following the spring 2003 operational test calibration analyses, these linear transformations were applied to the resulting Rasch student proficiency (ability) estimates at each total score point, yielding the final [raw score to scale score conversion tables](#). The resulting TAKS scale score system has a range of approximately 1000 to 3200.

It is important to note that in raw score to scale score conventions for the TAKS tests containing constructed-response items (short-answer or essay questions), the total raw score is a combination of the number-correct score on the multiple-choice questions and the scores achieved on the constructed-response questions.

Additionally, scale scores for writing and ELA are impacted by the essay score requirement of the standards. For writing and ELA, a student is required to attain a score of 2 or higher on the essay prompt to achieve Met Standard. For writing, a student is required to attain an essay score of 3 or higher on the essay prompt to achieve Commended Performance. Essay score requirements of the standards are available on [TEA's Student Assessment Division website](#).

Vertical Scale Score

A vertical scale allows for the direct comparison of student scores across years. Student increases in vertical scale scores provide information on the year-to-year growth of students.

In 2007 the 80th Texas Legislature enacted a law requiring Texas to develop and implement a vertical scale for the TAKS reading and mathematics assessments in grades 3–8. In spring 2009, Texas reported vertical scale scores for informational



purposes for English TAKS reading and mathematics in grades 3–8. Vertical scale scores also were reported for informational purposes in 2009 for Spanish TAKS reading and mathematics in grades 3–6.

The vertical scale for TAKS English and Spanish both have a potential score range from approximately 0 to 1000. The vertical scale score for Met Standard and Commended Performance is a different number for each grade and subject. For both TAKS reading and mathematics, these numbers increase from grade to grade.

The vertical scale scores can be computed through a linear transformation of the reported TAKS horizontal scale score. The linear transformation is as follows:

$$VS_j = \{[(SS_j - T2)/T1] + LC_v\} * A1 + A2$$

where VS_j is the vertical scale score for student j , SS_j is the horizontal scale score for student j , $T1$ and $T2$ are scale score transformation constants provided in Tables 10 and 11, LC_v refers to the vertical scale linking constant, and $A1$ and $A2$ refer to the vertical scale transformation constants.

Table 9. Vertical Scale Score Linking Constants for the TAKS English Tests

Vertical Scale Score Linking Constants for the TAKS English Tests		
	Grade	LC_v
Reading	3	-2.4015
Reading	4	-1.3896
Reading	5	-0.6213
Reading	6	-0.4384
Reading	7	0.0052
Reading	8	0
Mathematics	3	-3.3488
Mathematics	4	-2.5249
Mathematics	5	-1.8814
Mathematics	6	-1.0841
Mathematics	7	-0.3490
Mathematics	8	0

**Table 10.** Vertical Scale Score Linking Constants for the TAKS Spanish Tests

Vertical Scale Score Linking Constants for the TAKS Spanish Test		
	Grade	LC _v
Reading	3	-2.0994
Reading	4	-1.2738
Reading	5	-0.5101
Reading	6	0
Mathematics	3	-1.9624
Mathematics	4	-1.3734
Mathematics	5	-0.2585
Mathematics	6	0

Table 11. Vertical Scale Transformation Constants for the TAKS English and Spanish Tests

Vertical Scale Transformation Constants for the TAKS English and Spanish Tests		
	A1	A2
English Reading	73.92659	597.37462
English Math	68.40735	666.89084
Spanish Reading	76.28649	608.96702
Spanish Math	81.67977	568.85605

Additional information about the [vertical scale](#) can be found online.

TAKS Results for Individual Students

The TAKS, including TAKS (Accommodated), scale scores indicate whether a student has met the passing standard or met minimum expectations and how far the student's achievement is above or below the passing standard. All enrolled students failing to meet the standard or minimum expectations on one or more subject-area tests must be offered accelerated instruction. A free TAKS study guide is provided to all students who do not meet the passing standard on a given subject in TAKS, including TAKS (Accommodated), and LAT. In addition, students enrolled in grades 9–11 who fail one or more TAKS tests are provided with personalized study guides at no charge. If a student has been administered a TAKS test (grade 3 reading, grade 5 or 8 reading and mathematics, and exit level) at least twice, both scale scores can be used to gauge the student's relative achievement gains or losses over the year. In this way, students can see whether their performance is improving over time.



Appendix B provides [scale distributions and statistics](#) as well as [mean p-values by objective and subject area](#) for TAKS assessments.

Test results can also be used to compare the performance of an individual student with the performance of a demographic group, a program group, or an entire campus or district at a particular grade level. For example, the scores for a Hispanic student in a gifted and talented program could be compared with the average scores of Hispanic students, gifted and talented students, all the students on a campus, or any combination of these aggregations at that grade level. Other scores can provide information about a student's relative strengths or weaknesses in core academic areas. For example, objective-level data can identify areas in which a student may be having difficulty. This identification can help campuses plan the most effective instructional intervention. Finally, individual student test scores may be used in conjunction with other performance indicators to assist in making placement decisions. However, all decisions regarding placement and educational planning for a student should incorporate as much of the student's test performance data as possible.

Groups of Students

Test results can be used to evaluate the performance of a group over time. Average scale scores and the percentage of students meeting the standard/meeting minimum expectations can be analyzed across administrations within the same grade and subject area to give insight into whether student performance is improving across years. For example, the average scale score for students who receive special education services taking the TAKS grade 4 writing test can be compared for spring 2006 and spring 2007 if the same performance standard is used (for example, the panel-recommended standard).

Test scores can be used to compare the performance of different demographic or program groups. TAKS and TAKS (Accommodated) scores can be analyzed within the same subject area of any single administration to determine which demographic or program group had the highest average scale score, the lowest percentage meeting the standard, the highest percentage achieving commended performance, etc. Other scores can be used to help evaluate the academic performances of demographic or program groups in core academic areas. For example, objective-level data can help campuses and districts identify areas of potential academic weakness for a group of students. This same methodology can be applied to an entire campus or district. Test results for groups of students may be used when evaluating instruction or programs requiring average-score or year-to-year comparisons. Because the tests are designed to measure content areas within the required state curriculum, considering test results by subject area and by objective may be helpful when evaluating curriculum and instruction.



Generalizations from test results can be made to the specific content domain represented by the objective or set of objectives being measured on the test. However, because each test measures a finite set of skills with a limited set of items, any generalizations about student achievement derived solely from a particular test should be made cautiously and with full reference to the fact that the conclusions were based only on that test. All instruction and program evaluations should include as much information as possible to provide a more complete picture of performance. In addition, all test scores can be compared with regional and statewide performance within the same subject area for any administration.

Equating

Overview

Used in conjunction with the scaling process, equating is the process that “balances” the slight difficulty differences across test forms and administrations to place the scores onto a common scale. By using sophisticated statistical methods, TEA “equates” the results of different tests, enabling the comparison of scale scores across test forms and testing administrations. In the 2008–2009 school year, Texas conducted equating activities including post-equating, pre-equating, field-test equating, and comparability analyses.

Pre-Equating

The pre-equating process is one in which a newly developed test form is linked, before it is administered, to a set of items that appeared previously on one or more test forms. In this way, the difficulty level of the newly developed form can be determined through this link prior to its administration, and the anticipated raw scores that correspond to scale scores at performance standards can be identified. In general, the pre-equating is conducted for retest and LAT forms. Because the retest population and LAT population are not representative of the general population, a pre-equated scoring table is used for newly developed forms for retest administrations and LAT administrations. Refer to technical details and procedures for a detailed description of the pre-equating process.

Post-Equating

After each primary test administration, base items (that is, items that are not field-test items) are calibrated using a proprietary computer program (in the case of tests composed of multiple-choice items only) to obtain Rasch item difficulty values. The post-equating phase of the TAKS tests used conventional common-item/non-equivalent groups equating procedures as described in the technical details and procedures. In general, post-equating is conducted for the primary forms.

The samples used for post-equating TAKS English multiple-choice-only assessments were typically in excess of 100,000 students per grade and subject and were representative of the TAKS population. The samples used for post-equating TAKS



Spanish assessments included nearly the entire population of test takers each year because, compared to TAKS English versions, these assessments were administered to relatively few students. For tests consisting of short-answer and/or essay items, essentially the entire student population was used in equating tests, such as the ELA and writing assessments.

Field-Test Equating

To replenish the item bank as new tests are created each year, newly developed items must be field-tested and equated to the scale of the original form as discussed in the technical details and procedures. The types of field-test equating for TAKS include both embedded designs and stand-alone designs.

When possible, embedded field-test designs are performed in order to obtain stable student responses because students do not know which items are field-test items and which are live items. In the 2008–2009 school year, field-test equating was conducted for TAKS (English and Spanish) multiple-choice only assessments through an embedded field-test design.

Stand-alone field testing is needed for small populations; when the test design prohibits embedded items; and when a test is being administered for the first time. Stand-alone field testing is used for TAKS (English and Spanish) writing tests and high school reading/ELA tests containing both multiple-choice and short-answer/essay items. The Spanish reading and mathematics assessments at grade 5 and 6 have very small student populations. These assessments require a separate stand-alone field testing in addition to embedded field testing in order to get the enough field-test items for test construction. TEA recognizes the challenges districts and campuses face with regard to time and resources when they are asked to participate in stand-alone field tests. In order to reduce districts and campuses' burden for attending stand-alone field tests, there were no TAKS stand-alone field tests in the 2008–2009 school year. Therefore, the stand-alone field-test equating was not conducted in the 2008–2009 school year.

Comparability Analyses

When the same test is administered in paper and online modes, studies have been conducted to determine whether the test scores and item statistics for both delivery modes are comparable or whether adjustments are warranted. From October 2008 to July 2009, the TAKS exit level retest administration was given in both online and paper modes. The TAKS comparability study analyses focused mainly on whether students taking the test online or on paper could be scored with the same conversion table or whether the scoring should differ for students taking the assessment online or on paper. Item-level and ethnicity/gender group-level comparisons were also conducted in the evaluation of test-level comparability. Detailed steps of the procedure and results of each of the



comparability analyses conducted within this time frame are described in the technical report [“TAKS Exit Level Retest Online Comparability Study Report 2008–2009”](#) posted on TEA’s Student Assessment Division website.

Based on the comparability analysis results, a separate conversion table was used for the following administrations:

- October 2008: TAKS exit level ELA online retest;
- March 2009: TAKS exit level mathematics and science online retest;
- April 2009: TAKS exit level mathematics online retest; and
- July 2009: TAKS exit level ELA online retest.

Reliability

The concept of reliability is based on the idea that repeated administrations of the same test should generate consistent results about student performance. Reliability is a critical technical characteristic of any measurement instrument, because unreliable instruments cannot be interpreted in a valid way. During the 2008–2009 school year, reliability estimates for TAKS assessments were conducted through internal consistency, classical standard error of measurement, conditional standard error of measurement, and classification accuracy.

Internal Consistency

Internal consistency is a measure of the consistency with which students respond to the items within a test. See [chapter 3](#) for detailed information about internal consistency. For tests involving dichotomously scored (multiple-choice) items, the Kuder-Richardson Formula 20 (KR20) was used to calculate the reliability estimates; and for tests involving a combination of dichotomous and a polytomous (extended response) items, the stratified coefficient alpha was used to calculate the reliability estimates. As a general rule, reliability coefficients from 0.70 to 0.79 are considered adequate, 0.80 to 0.89 are considered good, and above 0.90 are considered excellent. However, appropriate levels of reliability depend on how an assessment is being used. For the 2008–2009 school year, most TAKS internal consistency reliabilities are in the high 0.80s to low 0.90s range, with reliabilities for TAKS assessments ranging from 0.87 to 0.90. Nunnally and Bernstein (1994) have recommended a minimum internal consistency estimate of 0.80 for group level interpretations and a 0.90 for individual-level score interpretations. As a general rule, reliability coefficients from 0.70 to 0.79 are considered adequate, 0.80 to 0.89 are considered good, and above 0.90 are considered excellent. Therefore, these 2008–2009 estimates fall right at the level appropriate for student-level interpretations.



Internal consistency estimates across grades and subjects were found to be of a similarly high level, with no noticeable increases or decreases across subjects or grades. For the different student groups, estimates were found to be similar in for grade 9 mathematics the reliability for the total group was 0.92, for female only was 0.92, for male only was 0.93, for African American only was 0.91, for Asian only was 0.92, for Hispanic only was 0.92, for Native American only was 0.92, and for white only was 0.92. Since internal consistency estimates typically decrease as the number of test questions decrease, internal consistency estimates at the objective level often ranged from low 0.50s to high 0.80s, indicating that interpretations of student objective-level scores are not as reliable as those from the full assessment. Lower reliabilities may result from very few items such as the mathematics objective “Probability and Statistics,” which generally had four items. In addition, lower reliabilities may occur for objectives with small student groups. Therefore, interpretations of these objective-level scores are encouraged to be made taking the lower reliability into account. [Appendix B](#) presents the internal consistency estimates for all TAKS content areas and objectives.

Classical Standard Error of Measurement

Classical standard error of measurement (SEM) provides a reliability estimate for a test score. The SEM represents the amount of variance in a test score resulting from factors other than achievement. The SEM is helpful for quantifying the margin of uncertainty that occurs on every test. For example, factors such as chance error, differential testing conditions, and imperfect test reliability can cause a student’s observed score (the score achieved on a test) to fluctuate above or below his or her true score (the true proficiency of the student). For the 2008–2009 school year, SEM values were approximately 31 to 60 scale score points in the middle of most score ranges for the horizontal scale scores. [Appendix B](#) provides SEM values for all primary TAKS administrations.

Conditional Standard Error of Measurement

Conditional standard error of measurement (CSEM) provides a reliability estimate at each score point on a test. CSEM provides an estimate of the average test score measurement error conditional on the proficiency estimate or scale score estimate. For the 2008–2009 school year, CSEM values were approximately 20 to 27 scale score points in the middle of most score ranges for the vertical scale scores. [Appendix B](#) provides CSEM values for all primary TAKS administrations.



Classification Accuracy

Classification accuracy provides an estimate of the accuracy of student classifications into performance categories based on current test results. See [chapter 3](#) for detailed information about classification accuracy. The classification accuracy results for TAKS indicated there were similar classification accuracy rates across languages within a subject. Classification accuracy rates for TAKS range from 77.0 to 87.8%. [Appendix B](#) provides classification accuracy rates for each TAKS grade and subject by language.

Classification accuracy is discussed in detail in [chapter 3](#).

Validity

Validity refers to the extent to which the test measures what it is intended to measure. Validity in the Texas assessment program is concerned with the general question of whether or not test scores will help educators to make appropriate judgments about student performance. Validity evidence for an assessment can come from a variety of sources including test content, the response process, the internal structure, relationships with other variables, and the consequences of testing. Texas collects validity evidence annually to support the various uses of TAKS scores. Texas follows national standards of best practice to continue to build its body of validity evidence for the TAKS tests. The sections that follow describe how these types of validity evidence were collected for the TAKS assessments in 2008–2009.

Evidence Based on Test Content

Validity evidence based on test content refers to evidence of the relationship between tested content and the construct the test is intended to measure. The TAKS test scores are designed for making inferences about students' knowledge and understanding of the TEKS. Validity evidence supporting TAKS test content comes from two sources, the established test development process followed in developing the TAKS assessments and documentation of expert judgments about the relationship between parts of the TAKS test and the test construct. The following activities took place during the 2008–2009 school year to contribute additional content validity evidence for the TAKS assessments:

For TAKS, test results are used to make inferences about students' knowledge and understanding of the TEKS. Standards-referenced assessments, such as TAKS, are based on an extensive definition of the content they assess. Test validity is therefore content based and tied directly to the statewide curriculum. To achieve the highest level of content validity, the process of aligning TAKS to the curriculum was carefully approached and included review by numerous committees of Texas educators.

When TAKS was designed as the standards-referenced general assessment to measure the TEKS, advisory committees consisting of educators from school districts across the state were formed for each subject area at each grade level. Teachers, test development specialists, and TEA staff members worked together in these committees



to identify the TEKS student expectations that were important to assess and to develop test objectives, item development guidelines, and test-item types. In addition, committees met to review and edit TAKS items for content and bias and to review field-test data.

The item writers as well as reviewers for each stage of development verified the alignment of test items with the objectives to ensure that the items measure appropriate content. The sequential stages of item development and item review provide many opportunities for Texas educators to offer suggestions for improving or eliminating items and to offer insights into the interpretation of the statewide curriculum.

Detailed information regarding the item and test development process is in [chapter 2](#).

Evidence Based on Response Processes

Response processes refer to the cognitive behaviors required to respond to a test item. Texas collects evidence that the way in which students respond to test questions on the TAKS assessments supports the accurate measurement of the construct. Student response processes on the TAKS assessments differ due to item type and administration mode.

ITEM TYPES

Four types of responses are required by students across the TAKS, including multiple-choice questions on all assessments, gridded-response questions on mathematics and science assessments, short constructed-response questions and essays on TAKS ELA and writing assessments. Texas gathers theoretical and empirical evidence supporting that the way in which students respond to these types of questions does not add construct-irrelevant variance. In addition, Texas gathers evidence that the response processes do not advantage or disadvantage one or more student groups.

The evidence Texas gathers comes from several sources. When item types were initially considered for inclusion in TAKS assessments, the item types were pilot tested. Once item types are determined to be appropriate for TAKS, evidence about student responses is gathered annually through educator and expert review and analyses of individual student responses to these items based on field testing. Each year educator review of the item content involves educators' evaluation that the content assessed by the item is appropriately assessed with the planned item type and judgments that students will be able to accurately demonstrate their knowledge of the construct by responding to each item in its planned format. When items are field-tested, data are gathered about students' responses to items and the statistical information, such as item difficulty, item point-biserial correlations, and differential item functioning, is evaluated taking item type into consideration.



ADMINISTRATION MODE

Students are also given the option to take the TAKS exit level retests on paper or online. Evidence is therefore needed to show that the paper and online response processes lead to score interpretations that are comparable. Texas conducts comparability studies on the TAKS exit level retests when sufficient numbers of students take the retests online. In these studies, Texas conducts analyses to evaluate comparability of interpretations at the test level and at the item level. Score adjustments are made when evidence suggests that students' responses on paper and online are not comparable. The adjusted scores account for differences in student responses across administration mode. During the 2008–2009 school year, ten comparability studies were conducted. See the TAKS [“Comparability Analyses”](#) section for more information on the comparability studies conducted in the 2008–2009 school year.

Evidence Based on Internal Structure

Texas collects evidence that shows the relationship among test questions and test objectives to demonstrate that the parts of a test conform to the test construct. Texas conducts annual internal consistency studies to gather evidence based on internal structure. In addition, Texas conducted studies to examine the structural comparability of the English and Spanish versions of TAKS tests. Evidence based on the internal structure of the TAKS gathered in the 2008–2009 school year to support internal consistency and structural comparability is summarized below.

INTERNAL CONSISTENCY RELIABILITY

The internal consistency of TAKS tests is evaluated each year using KR20 for tests with dichotomously scored test questions (i.e., multiple choice and gridded response items) only. For TAKS tests with a combination of multiple choice and constructed response type questions (e.g., English language arts and reading TAKS), internal consistency is calculated using the stratified coefficient alpha. Internal consistency estimates are evaluated for all students and for reported student groups including female students, male students, African American students, Asian students, Hispanic students, Native American students, and white students. Estimates are made for the full test as well as for each objective within a content area. As noted in the [“Reliability”](#) section of this chapter, most internal consistency reliabilities for TAKS when all students were included are in the high 0.80s to low 0.90s range (1.0 being perfectly reliable), with reliabilities for TAKS assessments ranging from 0.87 to 0.90. Nunnally and Bernstein (1994) have recommended a minimum internal consistency estimate of 0.80 for group level interpretations and a 0.90 for individual-level score interpretations. Therefore, these 2008–2009 estimates fall right at the level appropriate for student-level interpretations.



STRUCTURAL COMPARABILITY

In addition to the test development evidence supporting the content comparability between the English and Spanish versions of the TAKS assessments, validity studies have been conducted to evaluate the structural comparability between the two language versions of TAKS. A study conducted by Pearson (Davies, O'Malley & Wu, 2007) on the structural equivalence of transadapted reading and mathematics tests provided evidence of validity of TAKS tests. The study suggested that the Spanish TAKS and English TAKS objective-level scores similarly relate to the mathematics and reading constructs. During the 2008–2009 school year, Pearson conducted a study to examine the measurement equivalence between the English and Spanish versions of TAKS science grade 5 tests. The study provided the evidence of the structural comparability at the objective level between the English and Spanish versions of TAKS science grade 5 tests. The study results were similar to those found in the 2007 study and implied that English TAKS and Spanish TAKS objective-level scores similarly relate to the science construct. The results of these studies are within expectations considering the content comparability between the two language versions of TAKS tests.

Evidence Based on Relationships to Other Variables

Another source of validity evidence is the relationship between test performance and performance on some other measure, sometimes called criterion-related validity. By comparing TAKS performance to performance on external measures, evidence supporting that the empirical relationships found from the comparisons are consistent with the relationships expected at the level of the construct underlying the proposed test interpretations. Texas conducted various studies in 2008–2009 to investigate student performance on TAKS compared with student performance on external measures.

GRADE CORRELATION STUDY

Since 2005, Pearson has conducted the grade correlation study annually to compare the pass/fail rates of Texas students on the TAKS tests with their passing credit/not passing credit rates in their past related courses. These studies provided one source of evidence of the test-criterion relationships. During the 2008–2009 school year, the most recent grade correlation study compared the passing rates of students on their 2008 TAKS grade 10 mathematics test with their passing rate for Algebra I and geometry courses. Only those students who had both TAKS and course data available were considered for comparison. Results indicated that a high percentage (53% for Algebra I and 63% for geometry) of students who pass the TAKS tests also pass their related courses. Small percentages of students passed the TAKS tests but did not pass their related courses (3% for Algebra I and 4% for geometry), passed their related courses but did not pass the TAKS tests (35% for Algebra I



and 22% for geometry), or failed to pass the TAKS test or their related courses (10% for Algebra I and 11% for geometry). For more details on the study, see the [“Grade Correlation Study”](#) report on TEA’s Student Assessment Division website.

TAKS SCORE COMPARISONS ACROSS GRADES

Additional validity evidence based on relations to other variables that Texas collected in the 2008–2009 school year came from the Vertical Scaling Studies titled [“English TAKS, 2008”](#) and [“Spanish TAKS, 2008”](#). In these studies, representative samples of students participated in the TAKS studies. Data used to implement the vertical scale allowed a comparison of student performance on the same number scale over grades 3 to 8 for TAKS English reading and mathematics and grades 3 to 6 for TAKS Spanish reading and mathematics for the first time. As expected, the study results showed that the student performance in TAKS reading and mathematics increases across grades.

Evidence Based on Consequences of Testing

Another way to provide validity evidence is by documenting the intended and unintended consequences of administering an assessment. Validity evidence that shows the TAKS assessment is having a positive impact on student learning and instruction has been collected through the educator surveys during 2008–2009 school year.

Pearson worked with TEA to develop and implement a plan to formally document the evidence of the intended and unintended consequences (consequential validity) of the TAKS assessment. As part of the plan, educator surveys were developed and administered to Texas educator groups in the 2008–2009 school year. Educators generally agreed that TAKS supports efforts to drive improvement in student achievement in the assessed subjects and grades. The majority of surveyed educators agreed that students who do not pass a TAKS test are provided additional instruction and academic support. Further, the surveyed educators generally agreed that TAKS provides additional information to parents about their child’s academic achievement and progress. The majority of educators who participated in the survey stated that teachers gain a more thorough understanding of the assessed TEKS student expectations and agreed that test results can be used as a gauge of district and school accountability.

Performance Assessments Used On TAKS and TAKS (Accommodated)

The TAKS, including TAKS (Accommodated), writing tests at grade 4 (English and Spanish versions) and grade 7, as well as the ELA tests at grade 10 and exit level, include a written composition component. Short-answer questions are included on the grade 9 reading test and the ELA tests at grade 10 and exit level.

Detailed information regarding performance assessments and the processes to score them is available in [chapter 2](#).



SCORE RELIABILITY AND VALIDITY INFORMATION: TAKS, TAKS (ACCOMMODATED)

Throughout the years, TEA has reported on the reliability and validity of the performance task scoring process. Reliability has been expressed in terms of reader agreement and correlation between first and second readings. Validity has been assessed via validity packets composed of responses selected and examined by TEA staff.

The following two tables summarize reader agreement rates (reliability) by grade and results of the use of validity packets by grade through the spring 2009 operational administration. Reader agreement rate is expressed in terms of absolute agreement (the first reader's score equals the second reader's score). Validity is expressed in terms of perfect agreement between the score assigned by a given reader and the "true" score assigned by TEA.

Table 12. Summary of Scorer Agreement (Reliability) for TAKS

Grade	Number of Responses Read	Agreement Rate (%) After 2 Readings	Number of Third Readings	Agreement Rate (%) After 3 Readings
4 (English)	319,154	65.0	111,836	97.9
4 (Spanish)	20,126	71.1	5,821	98.4
7	325,063	65.0	115,119	98.0
9	1,084,125	78.06	232,102	99.4
10 WC*	302,615	65.1	105,500	98.2
10 SA*	907,845	75.4	223,636	99.5
11WC*	272,746	70.0	81,808	98.6
11 SA*	1,011,129	83.0	171,881	99.6

*SA refers to short answer. WC refers to written composition.

Table 13. Summary of Validity Packet Results for TAKS and TAKS (Accommodated)

Grade	Agreement Rate (%)
4 (English)	77
4 (Spanish)	80
7	78
9	92
10 WC*	79
10 SA*	89
11WC*	75
11 SA*	91

*SA refers to short answer. WC refers to written composition.



Student response scores are based on the score that has been agreed upon independently by at least two of three readers. Only a fourth reader, limited to senior scoring staff, can determine the final score when a response has been given discrepant scores by three independent readers.

Measures of Annual Improvement

Student growth and projection measures track a student's performance across time. Improvement measures track student performance from grade to grade, whereas projection measures use current student performance to predict future performance. Student progress within the TAKS assessment program is measured using a projection measure known as the Texas Projection Measure (TPM). The TPM was implemented for TAKS, TAKS (Accommodated), and LAT versions of TAKS in 2009. The TPM was developed to meet House Bill 1, Senate Bill 1031, and House Bill 3 legislative requirements for a measure of annual improvement in student achievement. The TPM is a multi-level regression-based projection model that estimates whether a student is likely to pass the TAKS assessments at a future grade. This measure is based on 1) the student's current performance on TAKS, and 2) the average TAKS scores from the student's campus.

The procedure used to develop the initial TPM was recommended by the Texas Technical Advisory Committee (TTAC) at their July 2008 meeting. It consisted of two steps and was based on a method described in a paper by Lissitz, et al. (2006). The first step in the process was an ordinary least squares multiple regression, which served to identify variables that statistically relate to measures of achievement. The second step was an analysis of the variability that is due to student clustering within schools, which determined the extent to which multilevel modeling was justified. For a full description of the process, see ["Procedures for Developing the Texas Projection Measure Equations."](#)

For the 2008–2009 school year, the subjects, grades, and language versions for which TPM was reported are shown in Table 14.

Table 14. Subjects, Grades, and Language Versions Reported for 2009 TPM

Subject	Projection to Grade	Projection from Grades	Language
Reading/ELA and Mathematics	5	3, 4	English, Spanish
	8	5, 6, 7	English
	11	8, 9, 10	English
Science	8	5	English
	11	10	English
Social Studies	11	8, 10	English
Writing	7	4	English

For more information on the specific TPM equations developed for each subject, grade, and language, requirements for students to obtain TPM projections, and steps to calculate a TPM score, see ["Calculating Projections with the Texas Projection Measure."](#)



As part of the growth proposal to the United States Department of Education (USDE), TEA agreed to conduct annual evaluations of the projection accuracy of the TPM with respect to all students, student groups, and different subjects. Therefore, after reporting TPM for the first time, Texas planned to evaluate model features so that the implementation of TPM in 2010 would be informed by empirical data. Features that were planned for evaluation included projection accuracy, use of the model with Spanish and cross-language testers, and inclusion of prior-year scores as predictors.

Because TPM was first reported and used in 2009, the accuracy of the 2009 projections cannot be evaluated until 2010 performance data are available. However, as a proxy, projections were generated based on student's 2008 test scores. Then, projected values in 2009 were compared with observed values in 2009 to evaluate one-year projection accuracy. Results indicated that the projection accuracy was high across grades, subjects, and student groups, as presented in Table 15. TEA will continue to evaluate the projection accuracy for applicable grades in 2010 once performance data are available.

Table 15. English TAKS Classification Accuracy for the TPM from 2008 to 2009

Grade/Subject	Group	N	Total Projection Accuracy		Accurate Classifications		Misclassifications	
			Accurate Projections	Inaccurate Projections	Met Standard	Did Not Meet Standard	Met Standard	Did Not Meet Standard
Grade 4 to Grade 5 Reading	All Students	287250 (100.00)	255345 (88.89)	31905 (11.11)	236025 (82.17)	19320 (6.73)	7313 (2.55)	24592 (8.56)
Grade 4 to Grade 5 Mathematics	All Students	286824 (100.00)	256396 (89.39)	30428 (10.61)	239676 (83.56)	16720 (5.83)	4998 (1.74)	25430 (8.87)
Grade 7 to Grade 8 Reading	All Students	293771 (100.00)	277808 (94.57)	15963 (5.43)	267306 (90.99)	10502 (3.57)	7926 (2.70)	8037 (2.74)
Grade 7 to Grade 8 Mathematics	All Students	292913 (100.00)	255312 (87.16)	37601 (12.84)	221138 (75.50)	34174 (11.67)	15082 (5.15)	22519 (7.69)
Grade 10 to Grade 11 English Language Arts	All Students	239306 (100.00)	227756 (95.17)	11550 (4.83)	224235 (93.70)	3521 (1.47)	743 (0.31)	10807 (4.52)
Grade 10 to Grade 11 Mathematics	All Students	236391 (100.00)	212389 (89.85)	24002 (10.15)	187155 (79.17)	25234 (10.67)	9998 (4.23)	14004 (5.92)
Grade 10 to Grade 11 Science	All Students	233543 (100.00)	212481 (90.98)	21062 (9.02)	194391 (83.24)	18090 (7.75)	10013 (4.29)	11049 (4.73)
Grade 10 to Grade 11 Social Studies	All Students	233329 (100.00)	228506 (97.93)	4823 (2.07)	227885 (97.67)	621 (0.27)	494 (0.21)	4329 (1.86)



Documents containing information are available at the [TPM page](#) on TEA's Student Assessment Division website. These documents include the proposal to the USDE to incorporate TPM projections towards calculations of AYP in 2009, information on the development and use of the TPM equations, and documents to address frequently asked questions.

Sampling

Sampling is a procedure to select a smaller number of observations (in this case, Texas students) that are representative of the entire body of Texas students. The results from well drawn samples allow TEA to estimate characteristics of the larger population of Texas.

Sampling plays a critical role in the research and annual development activities necessary to support the Texas assessment program. The assessment program affects all students (or the population of students) in Texas. A sample is a group of students smaller than the population that can be used to represent the overall population. Through the careful selection of student samples, TEA is able to gather reliable information about student performance on its tests while minimizing campus and district participation. In particular, sampling is used in the Texas assessment program for: 1) testing that is part of a research study, and 2) stand-alone field tests. In 2008–2009 school year, there was no sampling conducted for the TAKS assessment program for research or stand-alone field-testing purposes.

