



Technical
DIGEST

FOR THE ACADEMIC YEAR 2020–2021

APPENDIX A

QUALITY CONTROL (QC) SYSTEM

Quality Control (QC) System

Prior to reporting test results, an extensive and comprehensive quality control (QC) process is performed by the Texas Education Agency (TEA) to verify the quality and accuracy of final reports for Texas assessments. Each step in the QC system process is summarized below.

1. Prepare a test design for each test administration. A test design is a set of specific instructions for preparing fictitious student answer documents that are used as test cases.
 - Check the proposed test design document for the upcoming administration for any design changes that might affect the QC process (e.g., new or revised fields in the student answer document).
 - Determine whether any new policies have been established since the last administration of the assessments that would affect how student answer documents are edited or how test scores are reported. Decide how these policies affect the QC process and how these changes should be tested with additional test cases.
 - Create a new database of test cases. A new test administration will have most of the same test cases as the previous administration of the same assessment, but with additions or changes necessary to reflect new reporting policies or new conditions that should be tested.
 - Prepare a written test design consisting of coding and gridding instructions for the test contractors, Educational Testing Service (ETS), and Pearson.
 - Send the test design and text file to the contractors according to an approved schedule of processing deadlines created for the particular test administration.
2. Prepare, enter, and submit online test cases for fictitious students.
 - Create a database of test cases that simulate the exact steps that a student and a test administrator would take on a testing day.
 - Verify that the score codes, accommodations, and other test indicators are appropriate for the given administration.
 - Verify that the information on the test ticket matches the online test that is generated upon logging in.
 - Take tests by selecting the answers as outlined in the spreadsheet of test cases.

- Submit all the tests for scoring to ensure that responses, score codes, accommodations, test information attributes, and demographic information are appropriately recorded and reported.
3. Receive raw score to scale score (RSSS) conversion tables from the test contractors.
 - The contractors each send RSSS conversion tables to TEA. Each RSSS table shows the scale score corresponding to each raw score point for an assessment. The tables are verified, approved, and incorporated into computer programs that produce the student and district/campus files and reports. Refer to the Equating section in [chapter 3, “Standard Technical Processes,”](#) for more information about RSSS conversation tables.
 4. Create a student-level data file. This file contains the data from the simulation of the processing of student answer documents from the test cases.
 - Verify that the resolved fields are correct in the database of test cases. The resolved fields simulate the changes that would be made in the contractors’ editing process if coding or bubbling errors are made on the student answer document or if any defaulting conditions apply.
 - Export the student-level data file from the database.
 5. Receive a student-level data file from the contractors.
 - The contractors each send an independently generated student-level data file to the TEA with student names, demographic data, and scores for the tests administered. These files are the result of a procedure that using the TEA-provided instructions in the test design and the online tests, simulate the completion of student answer documents and online tests by districts, followed by processing, editing, and scoring of student answer documents by the contractors.
 6. Compare the TEA student-level data files to the student-level data files provided by the contractors.
 - For each record in the data file, compare every variable in the contractors’ student-level data files with the corresponding variable in the TEA student-level data file.
 - Investigate each mismatch, if any, and determine the source and reason for the discrepancy.
 - Make corrections, if necessary, in accordance with established policy and editing rules.
 - Repeat the process by regenerating student-level data files, comparing again, and resolving discrepancies until the data files from the contractors match the TEA data files.

7. Produce reports.

- The contractors generate reports (individual and summary reports) for three fictitious districts for the tests administered. The contractors then provide these reports electronically to TEA. In addition, printed copies of the student report cards and confidential student labels are shipped to the TEA.
- A corresponding TEA report is produced for each contractor’s report.
- Reports by TEA and each contractor are generated with independently produced computer programs.

8. Verify reports.

- The TEA-generated reports are compared to the reports provided by the contractors to verify that they contain identical information.
- Any discrepancies found are investigated and corrected.

9. Approve reports.

- When all the reports for the fictitious districts are verified to be free of error, TEA notifies the contractors that reports can be posted on a secure website and shipped to school districts when their internal quality assurance (QA) process is complete.

10. Student portal verification

A random sample of student records are selected for each test case and a QA checklist containing the following elements is executed:

- Reports are accessible by access code and date of birth.
- Reports populate as expected for each test case spanning the administration type, grade, and subjects.
- Data for the selected student record appear correctly, including but not limited to student identifying information, demographic information, and both current and historical test result information.
- All functionality within the portal performs as expected including the toggle to the Spanish-language version.
- PDF reports download and populate as expected.
- PDF report data and portal data are compared for accuracy and consistency.
- Where applicable, item reports populate correctly and verify the number of correct and incorrect responses, number of items, and percentage of students responding correctly.

- Test cases are verified in Firefox, Chrome, Internet Explorer, Microsoft Edge, and Safari.
- Test cases are tested for mobile use on iPhones and iPads as well as Samsung Galaxy S7 and Samsung Galaxy Tab S3.

11. Teacher portal verification

A QA checklist containing the following elements is executed:

- For each program, reports populate as expected at each level (e.g., district or school), administration, grade, and subject.
- All functionality performs as expected including summarization, report reset, and the display of N-counts or percentages.
- CSV files download and populate as expected.
- Users can drill down from summary to roster, and from roster to individual student.
- A search for ID or name provides no duplicate results, and clicking shows correct student scores.
- The menu works as expected. The user is able to get a report, save, confirm the report is accessible on the page, and delete the report.
- The user can access the correct help guide, can create a new account, and can manage accounts.
- All user roles populate as expected.
- Test cases are verified in Firefox, Chrome, Internet Explorer, Microsoft Edge, and Safari.
- Test cases are tested for mobile use on iPhones and iPads as well as Samsung Galaxy S7 and Samsung Galaxy Tab S3.