

FCAT Spring 2010—Student Document Verification Processes

This document describes the processes by which FCAT student documents are accurately matched to students and verified during scanning, scoring, and reporting. Quality assurance measures taken by the Florida Department of Education and contractor staff are explained below. Questions about this information may be directed to the Office of Assessment at 850.245.0513.

- Approximately 95% of scannable documents use PreID labels, which results in the most accurate data, as the source is each district’s own database.
- Documents are assigned two unique numbers during scanning and processing for easy student document identification and retrieval in the event of an inquiry.
- DOE reviews thousands of documents at the contractor’s scanning site for each administration to ensure that PreID and gridded demographic information is being scanned accurately.
- Data quality control processes verify scanning through reporting each administration.
- DOE score inquiry system available for missing or questionable ID-ed documents.

Quality Assurance—Highlights

- Approximately **95%** of all answer documents are **Pre-Identified (PreID)**. Individual student information provided by districts prior to an assessment is printed on PreID labels, which are affixed to scorable documents. The PreID process dramatically reduces the possibility of student demographic gridding errors prior to scanning, scoring, and reporting.
- Whether PreID or hand-gridded, students “take ownership” of their test documents by signing their names at the top of each document.
- Every scanned answer document is assigned two numbers:
 - A **Print-After-Scan (PAS) number** is stamped on documents as they are scanned. Every answer document has its unique PAS number printed on each page to link all pages in a single document.
 - A **Unique Identification Number (UIN)** assigned to each document links the document to student demographic information. The UIN remains linked to the document from the time of image editing to the creation of the SSR file.
- Mock data are produced which simulate all gridding scenarios and scoring processes for the state. Mock data validate random sets of student test answers that **replicate every possible response** that can occur on the multiple-choice and gridded response questions. In addition, all demographic fields and PreID variables are verified during mock data review.

- As actual student responses are returned to the scoring contractor, sample student scanning and pre-scoring results are hand-checked at every line and bubble on the scanned documents. **Thousands of documents are reviewed by DOE and contractor staff (FSU Center for Advancement of Learning and Assessment) each administration.**
- DOE and contractor staff rigorously validate the data **at every stage** in the scanning, scoring, and reporting process.

Quality Assurance—Process Details

How do we know that a student name is correctly associated with that student's test and answer documents?

1.) Precautions during preparation and scanning process:

Preparation

- Pre-Identification (PreID) barcodes on front of documents are designed to greatly reduce human data entry errors as well as machine-reading errors in identifying students.
- Districts prepare Document Count Forms (DCFs), which aid by consolidating groups of documents by school and validating student PreID district and school information during scanning.
- Scannable documents received for processing are carefully opened and checked; information for every box is maintained in both manual and electronic logs.
- Received and expected document counts are reconciled from orders, logs, and security barcode lists. Discrepancies are followed up with districts to locate any missing documents.

Scanning:

- Retrievable imaging of every page scanned by machine is stored for each document.
- Every page of a document is linked by a unique Print-After-Scan (PAS) number printed by the scanner as it is being fed through the machines, so every loose page can be reassembled to its source document and matched to its electronic image immediately.
- Each answer document is assigned a Unique Identification Number (UIN) linking the document to the student demographic information. This UIN is attached to the answer document from the time of image editing to the creation of the SSR file.
- Scanners have programmed crosschecks that alert and stop processing for anomalies, including miscounted pages, DCF mismatches, unreadable marks, torn pages, misaligned pages, etc.

- Multiple student data fields are analyzed for identification; close matches, exact matches, and probable matches are flagged and investigated manually, often including calls to districts.
- DOE early scan audit trips include reviewing both original scan and post edit records of changes.
- A rescanned document receives a new PAS number and can be compared with an earlier scan of the same document. Duplicate or edited records are manually verified before scoring.
- Scanning and editing rules are validated before any live records are processed via the mock data verification activities. Scannable documents are gridded and comprehensively test the contractor's scanning, scoring, and reporting systems. DOE manually inspects all of the mock documents.

2.) DOE verifications and audits throughout process:

- As soon as the contractor begins receiving scannable documents, DOE visits and audits the start of processing via visual inspection of each staging area from receiving to archiving.
- DOE verifies that the scan and post-edit files pick up PreID and hand-gridded data on the scannable documents.
- Thousands of documents are reviewed during early scan site visits.
 - Only one issue was found relative to PreID barcode numbers this spring: if a barcode has been marked through, the barcode number might not be picked up by the scanner. If that happens, an alert is created and the document is sent to key-entry personnel for the barcode information to be hand-entered. The few alerts that were raised were handled correctly by the contractor's editors. **After the live scan audit for Spring 2010, DOE was satisfied that the scanning programs were working properly.**
- Inspection of the first processed batches and stacks are specially targeted when data anomalies occur by concentrating on lists of historical problem areas and running data-checking logic programs.
- All parts of the documents are compared to the contractor's database, including hand-entered demographics, PreID labels, test group codes, and all responses or lack thereof.
 - This spring, DOE noted PearsonAccess being susceptible to changes in PreID demographic data elements other than First Name and Last Name.
 - If a student has both a PreID barcode and gridded information, the scoring specifications are clear that the PreID information takes precedence unless the PreID information was blank. DOE checks that the information populated in the SSR file is consistent with the PreID file.
 - For books without PreID labels (i.e., with gridded information only), DOE checks that the information in the SSR file is consistent with the gridded information. Original gridded information is preserved in the back of the SSR file for all documents.

- Prior to merging Reading and Math scores and historical FCAT data, the contractor follows DOE strict student matching criteria .
- Accommodated large print student documents are given special attention because they require a significant amount of transcription, editing, and extra processing time. Any issues with large print documents are resolved prior to the production of the SSR.
- Mismatched, duplicate, or missing records can trigger an immediate investigation and request for more documents or a change in procedures.
 - Between the first and second SSR file deliveries, the DOE resolves duplicate records (records with the same district-school number, last name, first name, and Florida SID number within a subject) to the greatest extent possible prior to reporting.
 - The original documents are pulled and posted as .pdf documents on the secure sftp site for review of PreID labels as well as any fields gridded on the student grid sheet.
 - Duplicate records may be caused by a student who took the same test twice, two students using the same SID number, or a student using an incorrect PreID label. In each case, DOE asks the district to investigate the situation and work with the DOE in order to determine the cause of the duplicates and to associate the correct students with the correct answer documents.
- In the case of legitimate concerns about scoring anomalies, schools and parents may request that the district ask for a Score Inquiry to be conducted by the DOE. The deadline for Score Inquiries for the Spring administration is September 8, 2010.