Appendix E: Technical Report Data

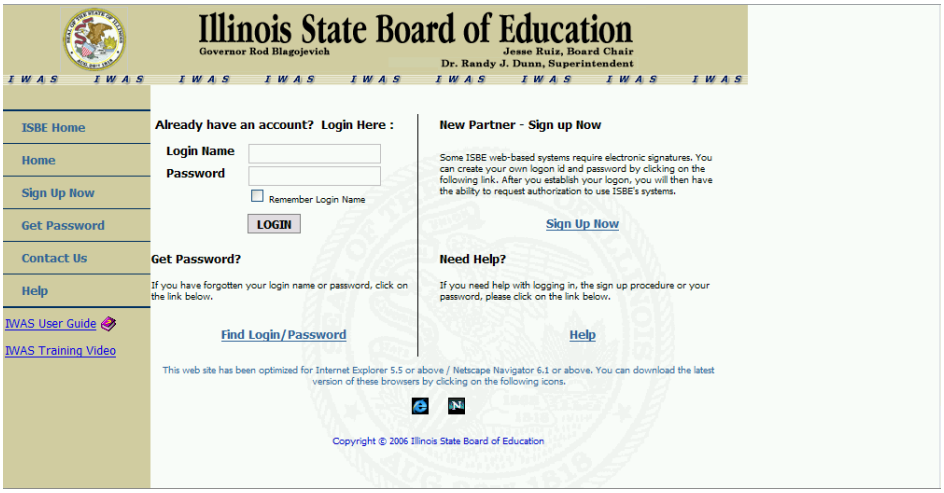
Harcourt Acquisition

Throughout this document, the name Harcourt is utilized. Harcourt Assessment, Inc was acquired by and merged into NCS Pearson, Inc. on February 1, 2008. The term Harcourt is utilized in this document only to define and clarify the contractual relationships prior to the acquisition.

A. Labeling and Ordering

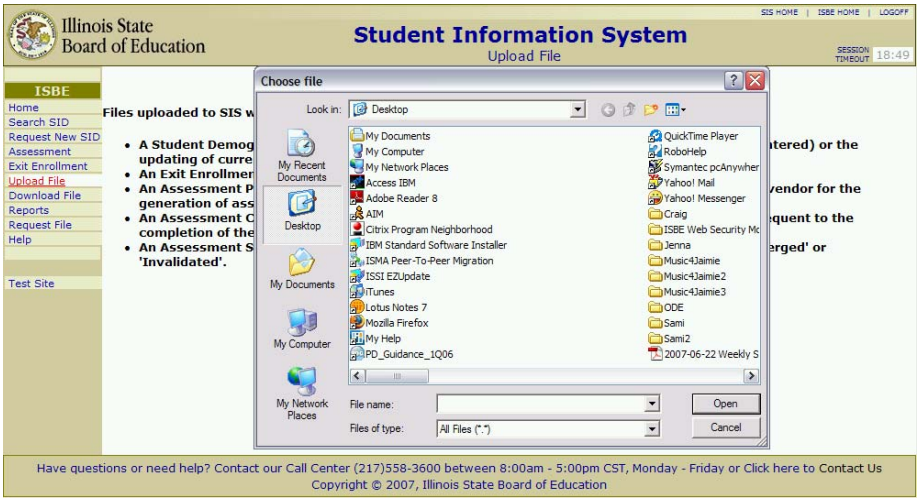
1. Description of student identification processes, including Pre-ID, ordering and enrolling procedures.

In the past, Districts and CPS schools were required to upload information directly to the contractor for pre-ID processes. ISBE is in its third year of a process that has Districts and CPS schools regularly updating demographic information on ISBE's Student Information System (SIS).



Helping Districts Submit Clean Data

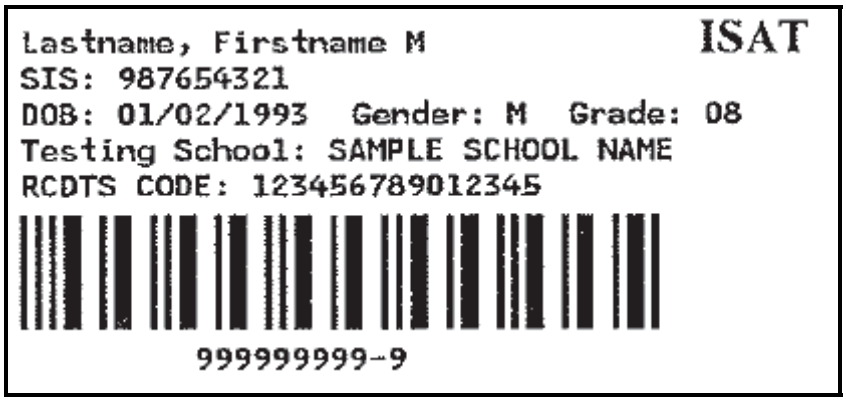
Districts uploaded the student pre-ID files to the SIS and made corrections to those files on the ISBE site during the enrollment window. Following the SIS enrollment window, ISBE securely delivered the pre-ID enrollment file to Pearson via Secure File Transfer Protocol (SFTP).



Upon receipt by Pearson, the file was processed against edit checks to verify the school/district information. Records with suspect data were flagged and ISBE was notified of such edit flags by the Pearson support staff. ISBE, District Personnel and Pearson support staff made appropriate updates to the records and the file was processed against edit checks again. This process was repeated until a clean Pre-ID file was achieved. At this point, the Pre-ID file was made available for Pre-ID label production.

Pre-ID Answer Documents and Labels

Test administration is time-consuming for school personnel and has the potential to introduce human error when hand-gridding is used. To save time for test administration and with a focus on accuracy, ISBE instructed Pearson to utilize pre-ID labels that are machine and eye-readable allowing administrators to quickly and easily sight verify information without the use of scanners. Pre-identified answer documents have student demographic information already printed on the label so hand-gridding is unnecessary in most instances.



Very Late Registration- When pre-identification information was not provided, the districts/schools were responsible for hand gridding the demographic and other appropriate information directly onto the answer document. At ISBE's direction, Pearson created griddable space on each document for these exceptions (see below).

2008 Illinois Standards Achievement Test (ISAT) – Grade 3

1 STUDENT NAME

LEGAL LAST NAME | LEGAL FIRST NAME | M

2 STATE STUDENT ID NUMBER

3 DATE OF BIRTH

MONTH: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec

DAY: 01 02 03 04 05 06 07 08 09

YEAR: 19 20 | 00 01 02 03 04 05 06 07 08 09

4 HOME SCHOOL RCDTS CODE

Reg. | County | District | Type | School

5 GENDER

Female

Male

6 CHICAGO DISTRICT 299 STUDENT ID NUMBER

7 REASON STUDENT DID NOT PARTICIPATE IN 2008 ISAT TEST

(Do NOT complete if student took even one test session.)

- Medically Exempt
- Homebound Exempt
- In Jail/Locked Facility
- Out of State/Country
- Transferred Out During Testing
- Transferred In During Testing
- Deceased
- Absent

8 OPTIONAL SCHOOL USE

A | B | C

9 FOR TEACHER USE ONLY

- Braille
- D/HI

10 ACCOMMODATIONS TESTING (Required)

IEP Accom 504 Accom LEP Accom

(If one or more of the above is selected, you must complete the portion below.)

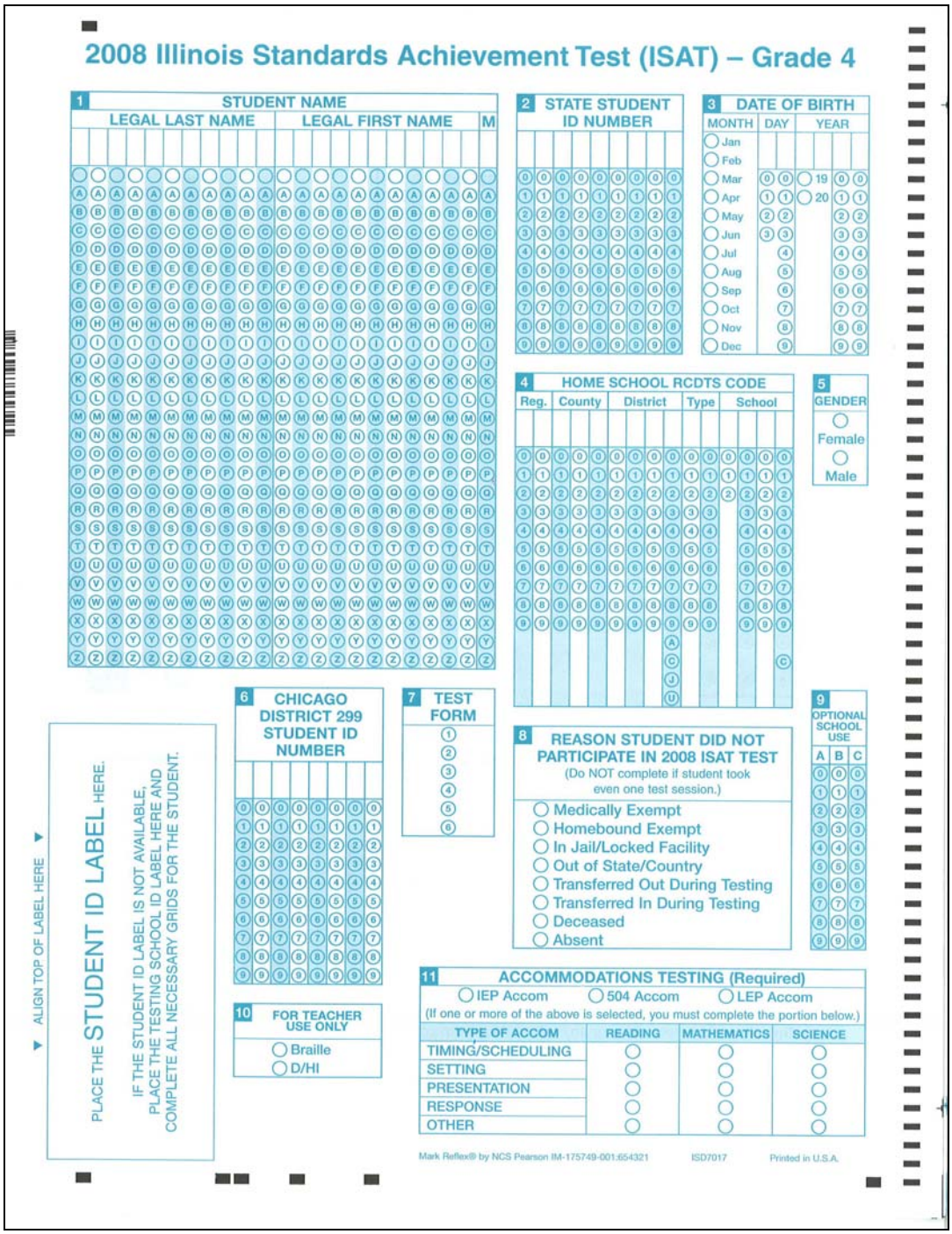
TYPE OF ACCOM	READING	MATHEMATICS	SCIENCE
TIMING/SCHEDULING	○	○	○
SETTING	○	○	○
PRESENTATION	○	○	○
RESPONSE	○	○	○
OTHER	○	○	○

▼ ALIGN TOP OF LABEL HERE ▼

PLACE THE STUDENT ID LABEL HERE.

IF THE STUDENT ID LABEL IS NOT AVAILABLE, PLACE THE TESTING SCHOOL ID LABEL HERE AND COMPLETE ALL NECESSARY GRIDS FOR THE STUDENT.

Mark Reflex® by NCS Pearson IM-175846-001:654321 ISD7012 Printed in U.S.A.



Supporting District Needs After Ordering

Though over 95% of materials were ordered accurately during the initial pre-ID and material ordering window, it is normal and typical that a school may need additional materials. Common reasons for these additional needs include late student transfers and incomplete/inaccurate enrollment information. The ISAT schedule allowed time for schools or districts to order additional testing materials after the initial distribution in early February. This was accomplished via an additional order process window.

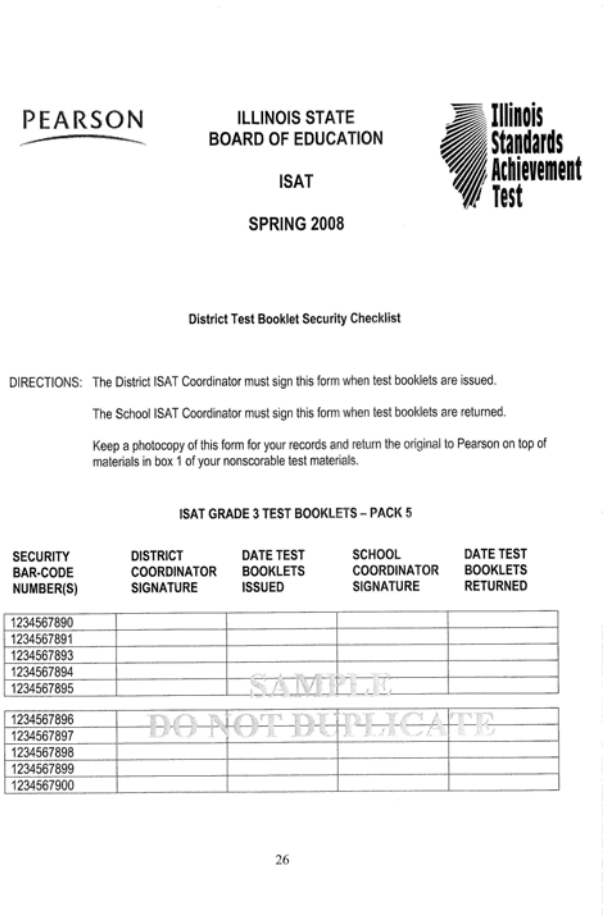
The materials that were made available for additional ordering included the following:

- Shipping notices customized for each school
- All ancillary materials needed to conduct the test
- Shipping labels for the district
- Forms to assist district staff in accounting for all school shipments
- Inventory lists, material control forms, and packing lists
- Report forms

ISAT Assessment Coordinators ordered additional materials directly by logging into Pearson's Assessment Network via the internet and by calling Pearson's Illinois Support Line where support personnel entered the additional materials requests.

To assist ISAT Assessment Coordinators with the check-in of materials upon receipt, ISBE instructed Pearson to include with each shipment of materials, a Materials Verification Form listing the bar code ranges of all secure materials included for each test site (and in the overage if applicable). This approach also allowed Pearson to verify the return of materials, to contact districts/schools with missing materials and to report any variance to ISBE.

Each ISAT Assessment Coordinator was responsible for confirming that all secure materials had been included, with bar code ranges corresponding to the Materials Verification Form. Following the shipment verification, the coordinator completed the Materials Verification Form, noting any anomalies or discrepancies, signed it, and returned it to Pearson. Pearson tracked the receipt of the forms and called to confirm the delivery status for missing forms after test materials were shipped.



PEARSON

ILLINOIS STATE BOARD OF EDUCATION

ISAT

SPRING 2008

Illinois Standards Achievement Test

District Test Booklet Security Checklist

DIRECTIONS: The District ISAT Coordinator must sign this form when test booklets are issued.

The School ISAT Coordinator must sign this form when test booklets are returned.

Keep a photocopy of this form for your records and return the original to Pearson on top of materials in box 1 of your nonscorable test materials.

ISAT GRADE 3 TEST BOOKLETS – PACK 5

SECURITY BAR-CODE NUMBER(S)	DISTRICT COORDINATOR SIGNATURE	DATE TEST BOOKLETS ISSUED	SCHOOL COORDINATOR SIGNATURE	DATE TEST BOOKLETS RETURNED
1234567890				
1234567891				
1234567893				
1234567894				
1234567895				
1234567896				
1234567897				
1234567898				
1234567899				
1234567900				

SAMPLE

DO NOT DUPLICATE

26

2. Description of the printing/quality control process for test booklets and student answer sheets.

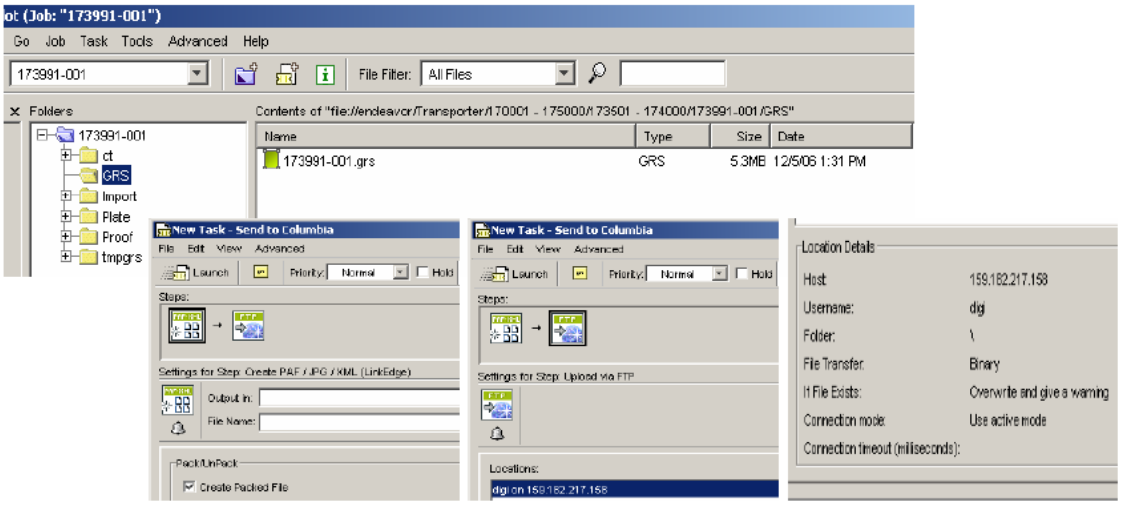
ISBE's third party quality organization, Harte-Hanks, sent their representative, Joshua D'Intinosanto, to the Pearson forms plant in Owatonna, MN in December 2007 to observe and document the processes involved in printing Illinois' assessment materials. During this visit, Pearson was in full production mode with Illinois materials for grades 3-8, including the collation and binding of the large 100+ page grade three test booklets.

It was observed and documented that Pearson operates a state of the art, pass card secure facility that maintains an ISO 9001 certification. The ISO 9001 certification was first achieved in 1994, so at the time of the visit, Pearson was in their thirteenth year of certification.

The facility employs approximately 140 staff, is the largest provider of scannable documents in the industry and produces over one billion forms per year.

Prepress Operations

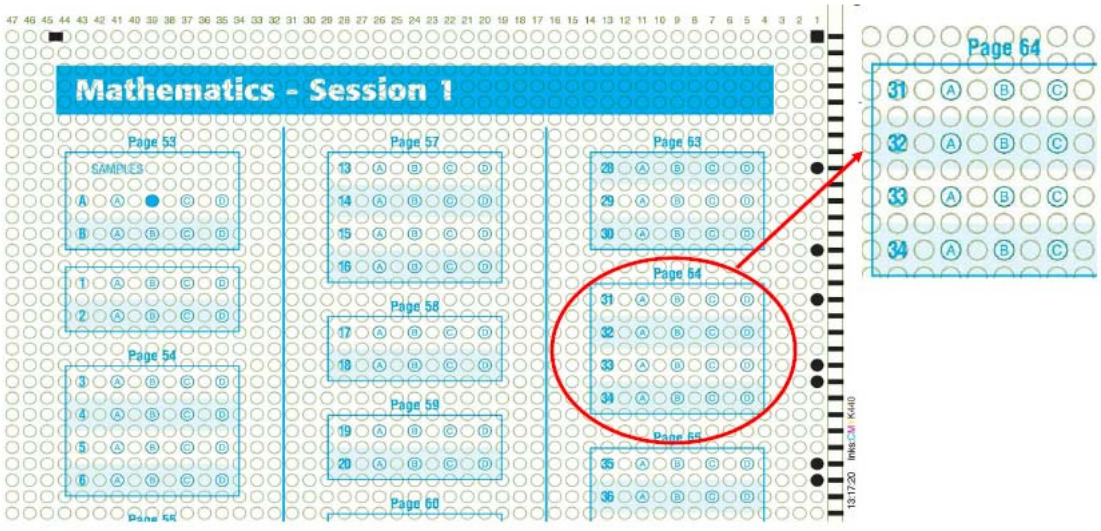
Receiving Forms Files from Harcourt - Pearson utilized a modern workflow program and system for file integration and security. This system allowed Pearson to receive "ready to print" files directly from the test publisher (Harcourt) and prepare the documents for printing.



Verifying Scannability of forms - Pearson utilized a digital registration grid to verify the file provided will scan properly on the predetermined scanning equipment (OpScan 9101). The image below demonstrates how the "ready to print" file should align. The multiple choice fields are aligned directly over the predefined scan area.

Any misalignment is corrected at this step in the process with digital technology.

- **Digital registration grid for scan verification**



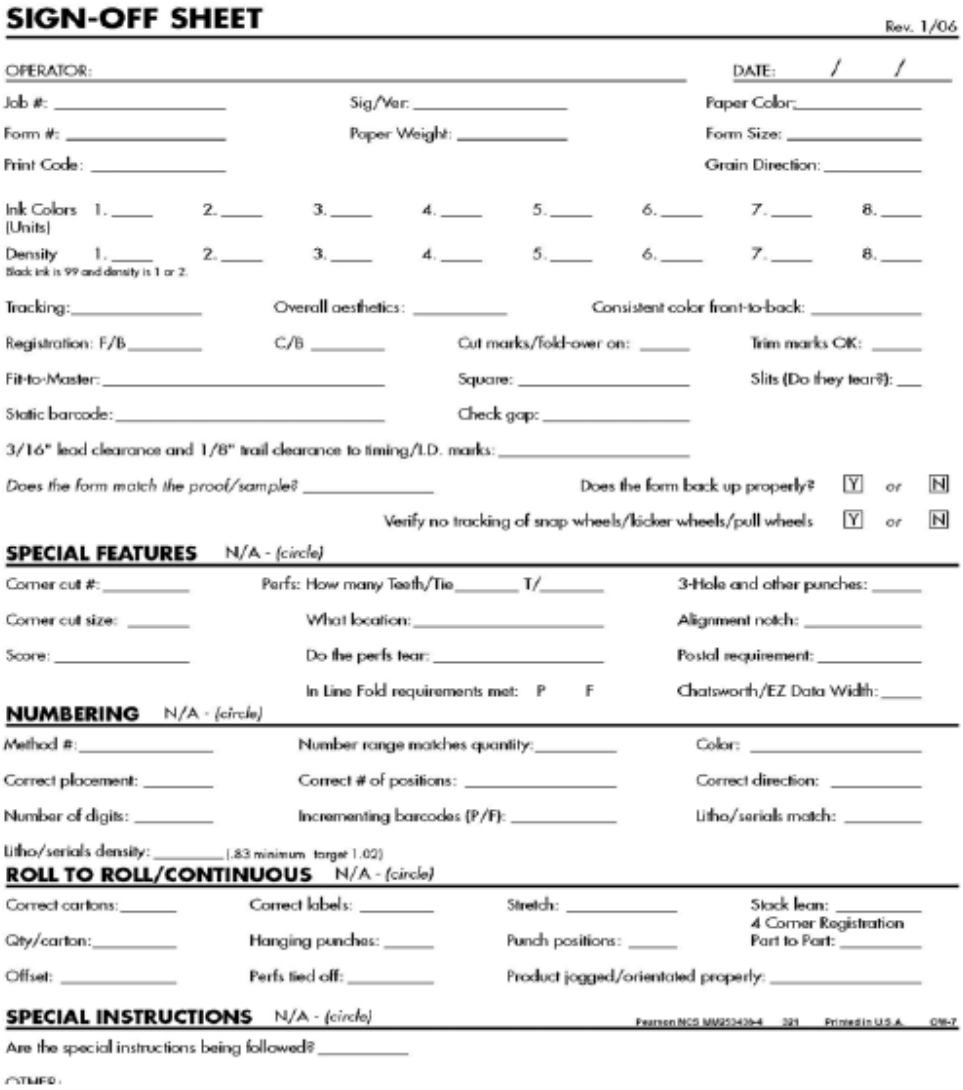
Quality controls and Identifiers

Following registration process, Pearson applied various identifiers and quality control measures. For example. (1) The bar code identifies the sheet as belonging to a specific grade and form of the test, as well as the specific page location. When the sheets are fed for collation and binding, they are pulled in a left to right manner based upon the configuration below. The bar code is purposefully slightly off center and only on one side of each sheet allowing the collation process to only work when the sheets are in the correct hopper and in the right configuration. Any other configuration will create an error and halt the operation. (2) Detailed batch numbers indicate the date, time and other identifying information. This allows for the isolation of errors and quick resolution of problems should an error be identified. (3) Trim marks as indicated by the small triangles at the bottom are part of the printing process and contribute to greater accuracy during the trimming process. Because these documents will pass through high speed scanners, tight tolerances in trimming will contribute to accurate and efficient scanning.

Pearson utilizes a computer to plate digital output process which eliminates an opportunity for human error in re-creating images for plate. Following the previously described quality processes, the scannable documents were burned directly to plate, just prior to printing.

This process is accurate and timely can will provide up to 100 plates or “signatures” per hour. A signature is one 11” x 17” sheet which consists of four 8 ½” x 11” images. In the case of Illinois largest booklet, the third grade booklet, the plate process took just over one hour per form for the one hundred pages.

“Make Ready” to print was the final step before the presses began creating ISAT test documents. Each operator must completely fill-out and check each step to be followed. Following this process, but prior to production, a press manager verified the accuracy of the process.



SIGN-OFF SHEET Rev. 1/06

OPERATOR: _____ DATE: / /

Job #: _____ Sig./Ver: _____ Paper Color: _____

Form #: _____ Paper Weight: _____ Form Size: _____

Print Code: _____ Grain Direction: _____

Ink Colors (Units) 1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____

Density 1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____

Black ink is 99 and density is 1 or 2.

Tracking: _____ Overall aesthetics: _____ Consistent color front-to-back: _____

Registration: F/B _____ C/B _____ Cut marks/fold-over on: _____ Trim marks OK: _____

Fit-to-Master: _____ Square: _____ Slits (Do they tear?): ___

Static barcode: _____ Check gap: _____

3/16" lead clearance and 1/8" trail clearance to timing/I.D. marks: _____

Does the form match the proof/sample? _____ Does the form back up properly? [Y] or [N]

Verify no tracking of snap wheels/kicker wheels/pull wheels [Y] or [N]

SPECIAL FEATURES N/A - *(circle)*

Corner cut #: _____ Perfs: How many Teeth/Tie _____ T/_____ 3-Hole and other punches: _____

Corner cut size: _____ What location: _____ Alignment notch: _____

Score: _____ Do the perfs tear: _____ Postal requirement: _____

In Line Fold requirements met: P F Chatsworth/EZ Data Width: _____

NUMBERING N/A - *(circle)*

Method #: _____ Number range matches quantity: _____ Color: _____

Correct placement: _____ Correct # of positions: _____ Correct direction: _____

Number of digits: _____ Incrementing barcodes (P/F): _____ Litho/serials match: _____

Litho/serials density: _____ (.83 minimum target 1.02)

ROLL TO ROLL/CONTINUOUS N/A - *(circle)*

Correct cartons: _____ Correct labels: _____ Stretch: _____ Stack lean: _____

4 Corner Registration

Qty/carton: _____ Hanging punches: _____ Punch positions: _____ Part to Part: _____

Offset: _____ Perfs tied off: _____ Product jogged/orientated properly: _____

SPECIAL INSTRUCTIONS N/A - *(circle)*

Pearson NCS MM2503494 321 Printed in U.S.A. 09-7

Are the special instructions being followed? _____

OTHER:

If a specific print run carries over to multiple shifts, the new shift operators will complete a sign-off sheet from scratch to verify their understanding of the customer's needs.

Process Control During the Production Run

During the production run of Illinois test forms, the press operator removed random samples and applied various quality checks, including:

- Paper Quality and Color Consistency
- Registration of Print Image
- Ink Color Consistency for color areas
- Ink darkness for black areas (skunks, timing, litho code and bar codes)

In addition to a variety of general quality checks for bleeding, smudges, etc., below is a sample QC document that is used by the operator to document the quality of the print run.

Date ___/___/___ Operator_____ Job #_____ Form #_____ Sig #___

Unit	1	2	3	4	5	6	7	8	Paper	Register	Litho/ Serial Density .83 min. 1.02 targ.	Barcode	Stack Lean	Fold Quality	Perfs/ Slits/ Punches
Ink Color											Pass	Pass	Pass	Pass	Pass
Density Ranges									Record Part Number	Pass or Fail	Fail or N/A	Fail or N/A	Fail or N/A	Fail or N/A	Fail or N/A
Box/Tag #/Serial#	Density Readings														
											P F				
											P F				
											P F				

If any errors or inconsistencies are detected, the press operator documents them on a specific event log sheet. Following the documentation, a supervisor is contacted to explore next steps to correct any deviations from the requirement.

NUMBERING / LITHO / BARCODE EVENT LOG

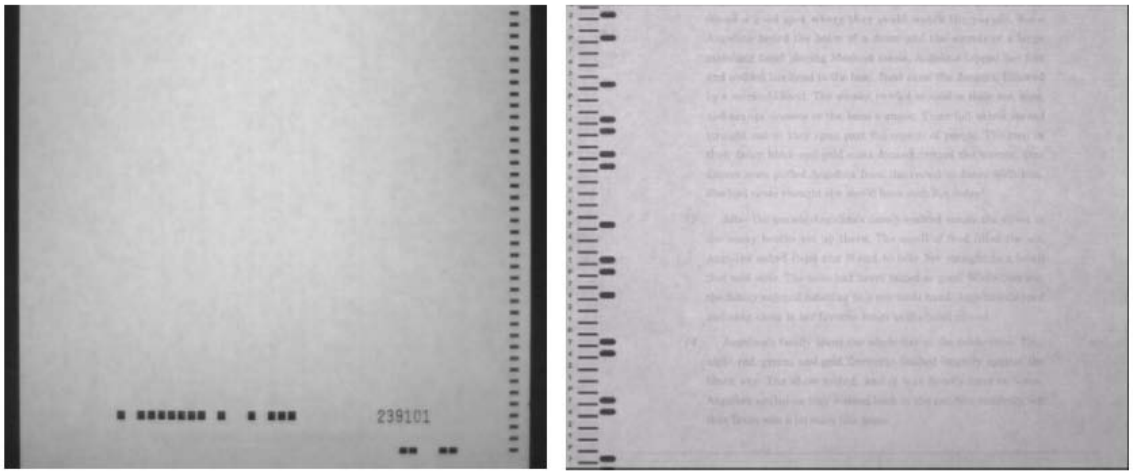
RESTART #	VERIFIED CORRECT	EXPLANATION

After Illinois test forms were printed, they were once again checked for proper registration with overlay film to confirm they will scan effectively.

Because high carbon ink can be read as a pencil mark in the future scanning process (post test administration), Pearson spot checks scannable documents from each run with an ultra-violet light. In this process, only black inks should show up as all other ink is expected to be invisible to the scanners.

Extra precautions are taken by using only auto load cartridges for black inks, eliminating the possibility of an accidental contamination of color inks with tools that have been used for black ink handling. The ultra-violet light quality test is the final step to confirm a clean print process. Though Pearson uses this final QC step on every batch that is produced, a contamination has not been encountered since the introduction of the black ink auto load process occurred in 2000.

– Custom camera system (FormView) on shop floor replicates scanner conditions



To the naked eye, the form on the left contains multiple choice response grids, but under the ultraviolet light, the response grids disappear as they do for the scanner. The ultraviolet light test confirms that no black ink has been accidentally introduced.

Collation of sheets into ISAT booklets

Each ISAT test is a multi-sheet test booklet. Pearson has established quality processes that significantly reduce the opportunity for collation errors. Typical collation errors without these processes may include:

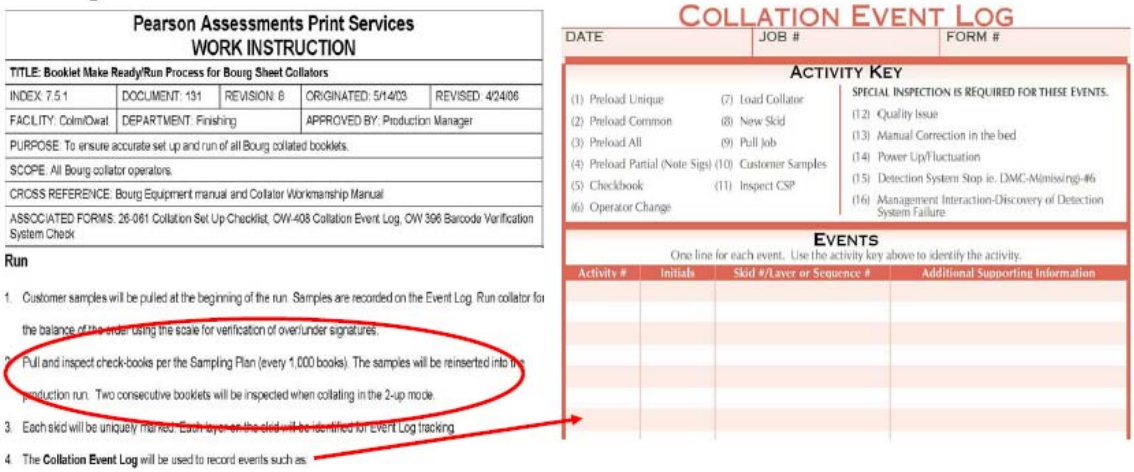
- Missing pages
- Incorrect pages inserted in the test booklet
- Pages inserted upside down
- Pages out of order
- Duplicate pages

The collation operator followed specific written processes to prepare for the collation and binding process. Each step is reviewed and initialed. A sample of the sign off sheet is represented below.

OPERATOR INITIALS	ACTIVITY
	Completely clear the delivery bed, folder, stitcher, and work bench of materials from the previous job.
	Review the Manufacturing Job Jacket for the order requirements.
	Remove all remaining unique signatures of the previous job from the collator pockets. Common signatures, if used on this job, remain in the pockets.
	Verify:
	1. Each sig has the correct spine code.
	2. The sigs are properly sequenced in the pockets.
	3. The sigs have the proper orientation.
	4. Pre-printed numbering sequences are correct, if applicable. If not applicable, please note as N/A.
	5. Check the sig bar alignment on the side of the stack.
	6. There are no obvious print defects.
	Insert the preloads into the pockets and raise the load.
	Complete a calibration of the Double-Miss Control (DMC) per the Workmanship Manual.
	Set-up and teach the bar code readers per the Work Instructions, if applicable. If not applicable, please note as N/A.
	Run the collator until the first assembled set of signatures is under the caliper measuring wheel.
	Set-up the caliper system per the Work Instructions.
	Complete the make ready and perform final adjustments on the collator.
	Completely clear the delivery bed, folder, stitcher, and work bench of materials used during the make ready process and dispose of material.
	Seek Sign-Off approval from supervisor or management designated individual.

As the collation process continues, samples are pulled and inspected at the beginning and end of the run, as well as at random times throughout the process.

- **Process control during production run**
  - Documented product inspection at specified intervals
  - Event log for specific processes and production interruptions



Pearson Assessments Print Services
WORK INSTRUCTION

TITLE: Booklet Make Ready/Run Process for Bourg Sheet Collators				
INDEX: 7.5.1	DOCUMENT: 131	REVISION: 8	ORIGINATED: 5/14/03	REVISED: 4/24/06
FACILITY: Colm/Owat	DEPARTMENT: Finishing		APPROVED BY: Production Manager	
PURPOSE: To ensure accurate set up and run of all Bourg collated booklets.				
SCOPE: All Bourg collator operators.				
CROSS REFERENCE: Bourg Equipment manual and Collator Workmanship Manual				
ASSOCIATED FORMS: 26-061 Collation Set Up Checklist, OW-408 Collation Event Log, OW 396 Barcode Verification System Check				

Run

1. Customer samples will be pulled at the beginning of the run. Samples are recorded on the Event Log. Run collator for the balance of the order using the scale for verification of over/under signatures.
2. Pull and inspect check-books per the Sampling Plan (every 1,000 books). The samples will be reinserted into the production run. Two consecutive booklets will be inspected when collating in the 2-up mode.
3. Each skid will be uniquely marked. Each layer on the skid will be identified for Event Log tracking.
4. The **Collation Event Log** will be used to record events such as:

COLLATION EVENT LOG

DATE | JOB # | FORM #

ACTIVITY KEY

(1) Preload Unique
(2) Preload Common
(3) Preload All
(4) Preload Partial (Note Sigs)
(5) Checkbook
(6) Operator Change
(7) Load Collator
(8) New Skid
(9) Pull Job
(10) Customer Samples
(11) Inspect CSP

SPECIAL INSPECTION IS REQUIRED FOR THESE EVENTS.
(12) Quality Issue
(13) Manual Correction in the bed
(14) Power Up/Fluctuation
(15) Detection System Stop ie. DMC-Missing-#6
(16) Management Interaction-Discovery of Detection System Failure

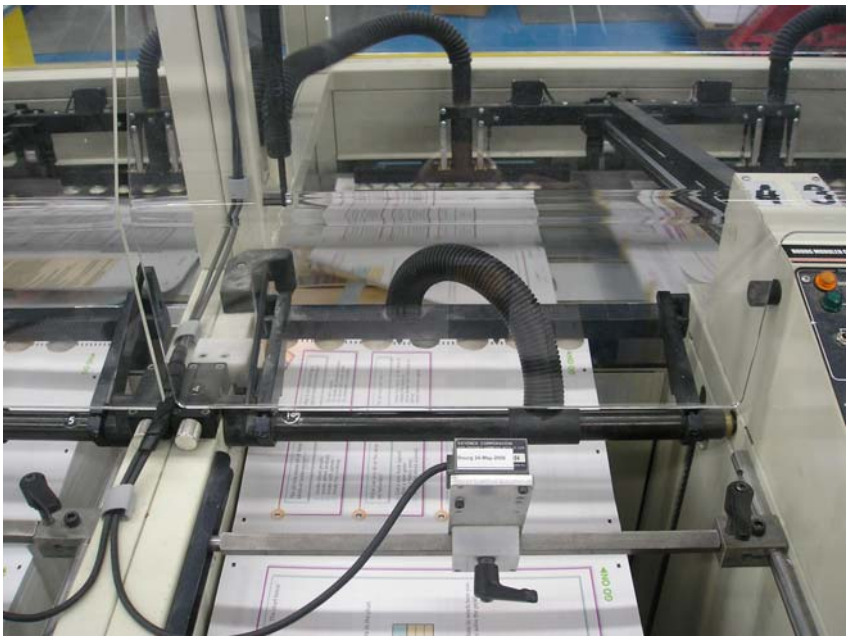
EVENTS

One line for each event. Use the activity key above to identify the activity.

Activity #	Initials	Skid #/Layer or Sequence #	Additional Supporting Information

Bar Coding on each signature (11”x17” sheet). As previously noted, the bar code is placed in an off center location so that it can only be read by the bar code scanner when the signature is in the correct registration (right side up and with the correct leading edge). With any other registration of the signature, the bar code will fall outside the read zone of the bar code reader. This approach allows the bar code reader to verify each sheet as it is placed into the test booklet. If any error is encountered, the collation process stops and the operator is directed to the error location in the collator to take corrective action.

A Double Sheet or Missing Sheet Detector is affixed to each pocket of the collation equipment to reduce the likelihood that two of the same signatures would be placed in the same booklet, resulting in duplicate pages. The sensor also notified the operator if no sheet was picked. Two separate technologies operate simultaneously to check for these errors. The first technology uses a light source to pass light through the sheet. A photo cell on the other side of the sheet reads the amount of light passing through the paper and determines if more than one sheet has been picked. This technology has been used for decades and has proven very reliable. Within the past five years, Pearson has added a second technology, holofects, which passes an electrical charge through the paper. A sensor then measures the electrical resistance. The likelihood of an undetected pick error is very low. Show below is a single pocket of the collator machine pulling in an 11”x17” signature of an ISAT test booklet.



An automated Caliper Process is employed after all signatures have been placed, but prior to binding to verify the test booklet is the appropriate thickness, and therefore contains the correct number of sheets. If any deviation from the standard is detected, the process is stopped and the operator is notified. Stoppages are documented, including cause and solution.

Following the binding process, but prior to final visual inspection by the operator, a highly sensitive digital scale measured each test booklet to verify that all signatures were bound properly and that the test booklet still has the correct number of pages. Any deviations from the standard will stop the process and the operator is notified to take a corrective action.

The final quality step prior to boxing and palletizing the test materials is for the collation operator to visually inspect booklets at random after binding. The operator looks for several specific factors including: general appearance, alignment of pages, quality of binding, quality of final fold, corner cuts where applicable, and any damage that could have occurred during the binding process.

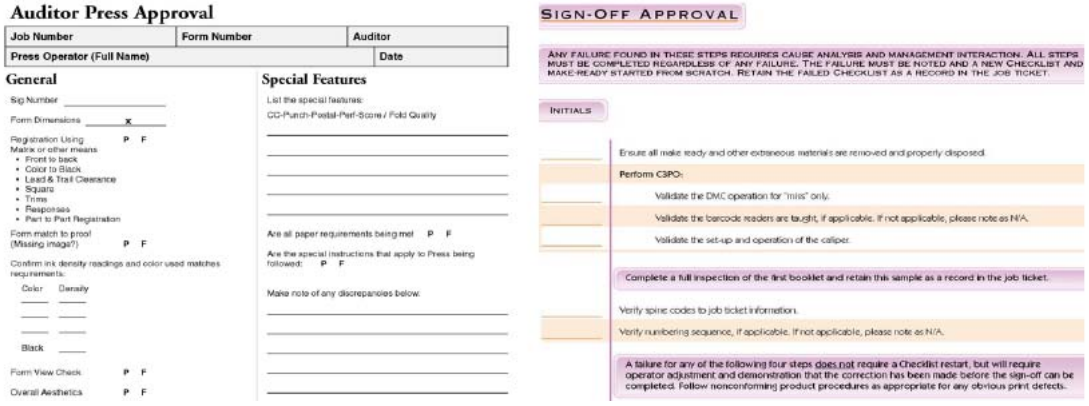
Other Quality Control processes and programs observed and documented by ISBE's third party organization (Harte-Hanks) include:

- **Operator Training**
  - Multi-level position structure in Finishing area
  - Cross-training in multiple functions required for advancement to next level
- **Verified process compliance and certification**
  - Quarterly re-certification administered by Quality and Process Improvement team

- **Critical Process Review (CPR) program**
  - Periodic review of critical, product realization processes
  - Standard Work Procedure (SWP) creation and modification
  - Multi-tiered approach, frequency of review based on potential exposure

Quality and Process Improvement

- **Dedicated Quality Auditors**
  - Stationed on shop floor
  - 4 Auditors to cover 24-hour period (4-hr overlap for each 8-hr shift)
  - Product inspection and process auditing



Auditor Press Approval

Job Number	Form Number	Auditor
Press Operator (Full Name)		Date

General

Sig Number _____

Form Dimensions _____ x _____

Registration Using Matrix or other means P F
- Front to back
- Color to Black
- Lead & Trail Clearance
- Square
- Trims
- Responses
- Part to Part Registration

Form match to proof (Missing image?) P F

Confirm ink density readings and color used matches requirements:

Color Density

_____ _____

_____ _____

_____ _____

Black _____

Form View Check P F

Overall Aesthetics P F

Special Features

List the special features:

CD-Punch-Postal-Perf-Score / Fold Quality

_____

_____

_____

_____

_____

Are all paper requirements being met P F

Are the special instructions that apply to Press being followed: P F

Make note of any discrepancies below:

_____

_____

_____

_____

_____

SIGN-OFF APPROVAL

ANY FAILURE FOUND IN THESE STEPS REQUIRES CAUSE ANALYSIS AND MANAGEMENT INTERACTION. ALL STEPS MUST BE COMPLETED REGARDLESS OF ANY FAILURE. THE FAILURE MUST BE NOTED AND A NEW CHECKLIST AND MAKE-READY STARTED FROM SCRATCH. RETAIN THE FAILED CHECKLIST AS A RECORD IN THE JOB TICKET.

INITIALS

_____ Ensure all make ready and other extraneous materials are removed and properly disposed.

Perform C3PO:

_____ Validate the DMC operation for "miss" only.

_____ Validate the barcode readers are taught, if applicable. If not applicable, please note as N/A.

_____ Validate the set-up and operation of the caliper.

_____ Complete a full inspection of the first booklet and retain this sample as a record in the job ticket.

_____ Verify spine codes to job ticket information.

_____ Verify numbering sequence, if applicable. If not applicable, please note as N/A.

A failure for any of the following four steps does not require a Checklist restart, but will require operator adjustment and demonstration that the correction has been made before the sign-off can be completed. Follow nonconforming product procedures as appropriate for any obvious print defects.

- **Quality Management System**
  - ISO certified since 1994 (9001:2000)
  - In-house database for issue tracking (internal and external)
  - Root Cause Analysis (RCA) utilizing the Apollo methodology
  - Corrective and preventative action definition and implementation
  - Periodic review and follow-up on action effectiveness
- **Lean Manufacturing/Six Sigma**
  - Facility-wide Value Stream Mapping (VSM) events
  - 5S Program in all production areas
  - Targeted setup reduction events (SMED) on press
  - Six Sigma trained personnel on staff
- **Production materials**
  - Ink and paper used are custom manufactured to our specifications
  - Regular testing performed upon receipt and prior to release to shop floor
  - Input from scanner engineering is used to create the evaluation criteria
  - Evidence of test results are provided to Pearson for approval
  - Historical records of batch and run data are maintained

- **Production environment**
  - Operate within a range of 35-45 relative humidity (RH) on the production floor
  - Maintained by automated humidification and dehumidification systems
  - Eliminates variation in dimensional stability of forms

3. Description of the packing lists/packaging/distribution/tracking process in accordance with procedures and security measures used in conducting the assessment.

Test Booklet Seals Maintain Security

Prior to the packaging process, a critical task was performed to secure the test booklets by applying an adhesive security seal directly to each test booklet and to subsections within. This helped to prevent the students from viewing test questions before a test session began and to require them to stop after a particular testing session was completed. Pearson manually applied six to eight paper seals to test booklets, depending upon grade level.

The test seal process began during test form design when the edges of each section were printed with an identifying mark at a specific location on the paper's edge. (For example, the first section has identifying marks on the edge of the pages in the upper most portion of the paper. The second section will have identifying marks on the edge of the pages at a location about an inch lower on the page.)

As observed by ISBE personnel and ISBE's third party quality organization (Harte-Hanks) on separate onsite visits to Pearson, this printed edge allowed the people applying the seals to quickly locate and apply the security seal with great accuracy.

ISBE directed Pearson to utilize a manual approach to sealing because this approach eliminated up to 50 blank pages in the test booklets, saved paper, printing costs and scanning time, resulting in a more visually pleasing test, a quicker turnaround and cost savings.

Over 5,000,000 seals were applied and approximately 20 million blank sheets of paper were eliminated with the manual sealing approach.

Printing and Wrapping with Bar codes to Track Materials Carefully

At ISBE's direction, security bar code labels were applied to all materials in the pre-pack stage. This approach allowed Pearson to more accurately pack materials and to track materials throughout shipping to the school districts and to CPS schools.

- Before packaging, unique bar code serial numbers are printed on test booklets and other materials that require security. Items that are grouped, such as five test booklets to a package, are shrink wrapped and bar coded.
- Pearson used an in-line Quality Control (QC) system to verify that bar codes were printed sequentially on materials, then grouped and weighed prior to wrapping to verify correctness of count. The purpose of weighing the prepackaged item was to predetermine the precise weight of each item, thus allowing the total package to be weighed as a final quality check. If the weight varied from the predetermined value, the box was pulled, manually inspected to determine contents and the error corrected.
- After QC verified and wrapped materials by package size, they were organized on pallets for final assembly. The extra organization steps contributed to an orderly and accurate final packaging process.

Pearson used handheld bar code scanners to track the location of every item from its receipt in the warehouse until it left the shipping dock.

The Oracle tracking system linked the individual test booklets to a shrink wrapped package. The shrink wrapped package was linked to a shipping box and label. The shipping box was linked to a shipping pallet, and the shipping pallet was linked to the shipping company's online tracking system. This approach allowed ISBE to know where each piece of ISAT material was located at all times from pre-packaging until it was delivered to the school or district.

Two Different Packaging Approaches for Chicago Public Schools and Non - Chicago Public Schools

The pre-identification labels were packaged by school and shipped to Illinois school districts as part of the shipment containing test booklets and answer documents. The exception to this was the Chicago Public Schools (CPS). Because of its size and the numbers of school buildings, and with the tight testing windows, ISBE instructed Pearson to treat each CPS school individually for packaging and shipping. For CPS, materials were packaged and shipped directly to the school building location and each CPS school building had a designated test coordinator.

Pre-Packaging

As described above, prior to packaging, Pearson and ISBE reviewed the requirements of the program and made decisions regarding sealing, shrink wrap quantities, packing order and security tracking. The purpose of these pre-packaging activities was to organize and coordinate the materials in a manner that supported the following:

- Sealed booklets to help maintain test security
- Established predefined quantities that are easier to handle
- Set quantities that reduce waste
- Organized materials in a logical manner for test coordinators
- Bar coded all materials for tracking, shipping and security

Pick and Pack Process for Accurate Packing

ISBE's third party organization, Harte-Hanks, observed the order fulfillment system which is guided by system-generated pick lists rather than pre-printed packing lists. The system generated pick lists detailing the numbers and types of materials to be shipped to districts. Bar code ranges were assigned by form type. A given district was assigned contiguous bar code ranges to expedite check-in of test materials when they are received.

- During the final packaging of tests for districts and CPS, Pearson used handheld scanners and system-generated pick lists that detailed the number and types of packaged materials needed by each school and district.
- Operators scanned the bar codes on each item as it was placed in the box to fill an order.
- As the operator picked each item for the order, the electronic transaction processed the activity and updated boxed and inventory available in real-time.
- If the operator scanned an incorrect item or an incorrect quantity, the system halted, not allowing the operator to continue. The system generated a report and the supervisor was notified. A supervisor corrected any inaccuracy before the operator could continue.

- The system executed a quality control check to confirm that the order was complete and assigned to the correct pallet.
- Once materials were packed, the system generated a packing slip and pallet detail report for each shipment based upon what happened in the packing process. The quantities on the packing list had to match exactly what was prepared for shipment before an order was released for shipment.
- During the packaging process, Pearson Illinois program team personnel were onsite monitoring the process and later tracked the shipping and order status online, observing and following up any delays in shipping.

On-Time Shipping

Federal Express was the primary carrier for all ISAT materials. FedEx has a very good reputation and has tracking systems that are compatible with Pearson's packaging and distribution system.

After materials were shipped via FedEx, a tracking number was posted to Pearson's online system, the Assessment Network, where school personnel, ISBE and Pearson support personnel could track the materials.

If any materials were delayed or not delivered as planned, test coordinators could contact Pearson via email and/or telephone. Pearson program staff worked with FedEx to locate and provide updates to school personnel regarding the status of the items in question. All materials were successfully delivered to all IL districts and CPS schools.

B. Delivery, Conduct, and Retrieval

1. Preparing for the assessments (training, planning, and interacting with ISAT testing coordinators to prevent/solve pre-assessment and assessment problems)

Training – In fall of 2007, ISBE instructed Pearson to conduct district training in the use of Pearson's Asssessment Network. This is the system utilized to order materials and track shipment progress. For a two week period, in October of 2007, Pearson traveled to various locations within the state of Illinois and conducted 4 hour training sessions. Prior to the training sessions, Pearson provided a demonstration to ISBE staff which allowed ISBE the opportunity to adjust any training prior to the live sessions. The Assessment Network system receives enhancements from administration to administration in an effort to respond to changing ISBE requirements and district needs. Pearson was able to make these adjustments prior to the district trainings and utilized an on-line demonstration of the prior year changes so that training could be more accurate and effective.

Enrollment - For spring testing 2008, districts utilized Pearson's Assessment Network to indicate material ordering quantities. Pearson worked with ISBE and the Illinois Student Information System (SIS) to obtain previous year enrollment counts to aid in this process and to help provide initial material ordering quantities.

Communication of changes - ISBE provided updates and procedural information to test coordinators through the assessment list-serve and through postings on the ISBE web site.

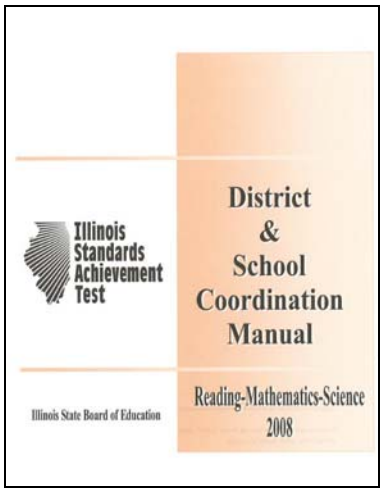
Additionally, ISBE instructed Pearson to establish an Illinois only 800 number, a fax number, an e-mail address and a self-serve website for support services. Test directors and Pearson program staff utilized these multiple environments for interaction with regard to all ISAT issues.

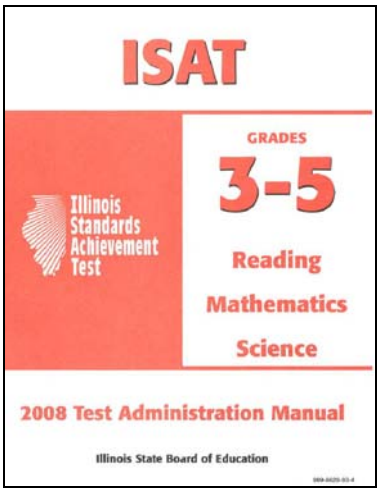
2. Report of the conduct of the assessment sessions

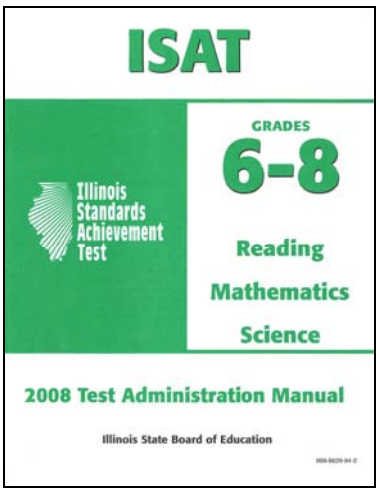
See section C (below)

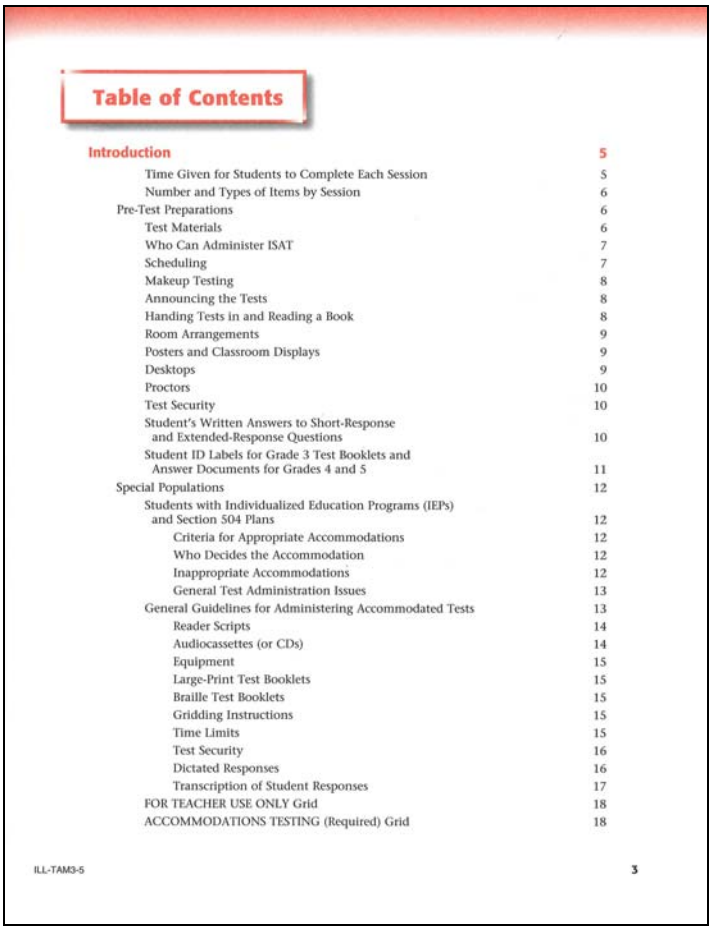
2.a. General assessment procedures.

ISBE worked with Pearson and Harcourt to establish assessment procedures, which were documented in the District and School Coordination Manual, as well as the Test Administration Manuals for grades 3-5 and 6-8. The procedures were verified and approved by ISBE prior to final distribution of materials and placing of e-version on the ISBE web site.









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2.b. Procedures for adequately handling aberrations from normal procedures, such as accommodations, school cancellations, suspected cheating, problems with delivery and printing, etc.

In the event aberrations from normal procedures are discovered or required, test coordinators contacted the ISBE's Division Administrator with information and a request for resolution.

Test coordinators described the situations encountered and in some cases, possible resolutions. The Division Administrator reviewed each case individually, consulted with the District, and provided direction according to ISAT administration procedures.

2.c. Description of departures from planned procedures, unanticipated problems, and methods of resolution.

Several Chicago Public schools encountered situations that necessitated a delayed test administration due to year round school schedules. In this instance, ISBE and Pearson worked together to achieve desired schedules and the Division Administrator delayed the testing window for the impacted schools.

Onsite Monitoring - Additionally and to monitor testing activities at the school level, ISBE instructed Pearson to conduct onsite test administration monitoring utilizing trained personnel. Pearson worked with ISBE to identify the monitoring personnel, contacted the staff and arranged training to complete this process. ISBE's third party organization, Harte-Hanks, also attended the training. Pearson's Quality Assurance department reviewed the test administration manual procedures to develop the monitoring checklists. Conference calls were held with ISBE staff as well to receive input into the monitoring checklists and process.

Pearson's representatives and Joshua D'Intinosanto (ISBE's third party organization) visited thirty-seven (37) schools to conduct onsite surveys during the testing process for the purpose of identifying any irregularities.

The thirty-seven (37) schools were located in fifteen (15) School Districts and were visited by thirty one (31) Testing Monitors. The districts consisted of both urban and rural locations in the Chicago Public School District and 15 non-CPS districts.

Of the thirty-seven (37) schools visited:

- 7 were within the Chicago Public School District
- 30 were non-CPS (1 elementary and 1 middle school in 15 districts)

The results collected by the Testing Monitors were delivered to the Pearson Quality Assurance organization for study and review. A post monitoring report was created and delivered to ISBE after a conf call was held to review findings. No significant irregularities were noted.

Shown below are the check lists that were collaboratively developed by ISBE and Pearson and used by the onsite monitors.

Test Security Check List

Questions	Comments
Before Test Administration	
Is there a roster of all students, at each grade who is taking the ISAT tests?	

When the non-secure testing materials arrived, were the materials received verified for sufficient quantities?	
When secure test materials arrived, were the booklet barcode ranges on the School Test Booklet Security Checklist verified? Ask to see the School Test Booklet Security Checklist.	
Were the boxes the materials arrived in saved to return them to Pearson?	
Were the test booklets left in the sealed wrap until just before distribution to the test administrators?	
When were the test booklets distributed to the test administrators? Note: Should be immediately prior to testing.	
After Test Administration	
When the secure test materials were collected from the administrators, were they verified and recorded on the School Test Booklet Security Checklist? Ask to see the School Test Booklet Security Checklist.	
Were all students who were eligible to take the ISAT, but didn't take any of it identified on the roster?	
Are there any ISAT Test Booklets that are not being returned? If so, has an Unreturned ISAT Test Booklet Form been completed?	
Were test booklets (grade 3) and answer documents checked for Student ID labels?	
Are Testing School ID Sheets completed for Tested Students and for Non-Tested Students?	
Are scorable test materials and nonscorable materials boxed separately, packaged in the required order and labeled with the return labels provided?	
Questions	**Comments**
Where are test materials kept when not in use? Is the location secure?	

Please describe. Secure: Locked storage cabinet, locked filing cabinet, locked desk drawer, or in a locked room which is only accessible by authorized individuals.	
Are test booklets left unattended and non-secured? If so, please describe.	
Has the contents of the tests been reviewed or examined by any school personnel before, during or after testing? If so, please describe.	
Has the contents of the tests been shared with students before or after testing? If so, please describe.	
Have any school personnel scored or graded any student responses before returning them to PEM for processing? If so, please describe.	
Have any of the tests or responses been photocopied, reproduced or kept by school personnel? Note: Photocopies may be made to provide a test accommodation, but must be returned with the original materials.	
Are all materials – used and unused – accounted for, secured, and returned to the appropriate school district coordinator?	

Other Comments – Positive Practices, or Areas of Concern

Positive Practice – A procedure and or document beyond what is required, that enhances integrity or efficiency.

Concern – A practice or situation that has the potential to compromise integrity or security.

Situation	Comments – note if Positive or Concern

End of Test Security Form

Regular Test Administration

Questions	Comments
Is the room well lit, adequately ventilated, and free of noise and interruptions? If not, please explain.	
Is the room large enough so that students are not crowded?	
Is seating arranged to discourage copying?	
Two types of posters may not be displayed: Instructions for answering a reading extended-response question (e.g. the Reading Student-Friendly Rubrics). Definitions of root words and affixes listed in the Illinois Assessment Framework for Reading. Are either or both of these posters displayed in the room? If so, where in reference to the student view?	
Are dictionaries or thesauruses available for the students to use during the tests? If so, they must be removed, or the students instructed not to use them. Were they?	
Are desks clear of materials other than the allowed test materials? Allowed: • Test Booklet • Answer document • Pencils, pen for written responses, highlighter • Calculator for math grades 4 – 8 • State provided paper rulers for math grades 3 – 8 • Blank unlined paper for math grades 3 – 8, session 1 only • ISAT Mathematics Reference Sheet for math grades 7-8. Students with IEPs or 504 plans may have other materials as long as it is noted in their accommodation plans.	
Questions	**Comments**
Are more than two test sessions scheduled in a day? If so, how many? Is this a makeup session?	

Are students given a break between test sessions? How long?	
Are test sessions given in sequence? e.g. math session 1, then 2, then 3 If not, please describe. Note: different subjects can be interspersed, such as reading session 1 can be followed by math session 1. Exception: Students who've missed test sessions should test with their class upon their return. Their sessions may be out of order.	
Are any test sessions split across days? If so, please explain. Note: Any test session started must be completed by the end of that day.	
Are all students in a given grade level, within the school completing the same test sessions on the same day? If not, please explain. Exception: Students taking special format tests and extended time accommodations.	
Questions	**Comments**
Do you see evidence that any test booklets have been opened or reviewed prior to the test? If so, how many? If so, document the barcode number(s) of the booklets if possible.	
Are there sufficient quantities of materials? • A Test Administration Manual • Test Booklets for each student • Answer Documents for grades 4 - 8 • Paper rulers for the mathematics test • No.2 pencils with erasers If not, how many of which items are short?	
Are there Student ID Labels for each student? If not, has all this information been provided in the grids?	
Did all students write their names on the test booklets and answer sheets immediately prior to the first test session?	
Is there only one ID Label affixed to the answer document (3rd grade – on the test booklet)?	
Is the ID Label affixed in the proper location?	

If a Student ID Label was not available for a student, is there a Testing School ID label affixed in its place? If so, has the student's demographic information been entered manually on the demographic page by authorized personnel? If not, please describe.	
Questions	**Comments**
If there are more than 35 students in the room, is there a proctor present to assist the test administrator?	
Is the test administrator providing test instructions directly from the Test Administration Manual, or composing instructions from the test forms? If composing instructions from the test forms, to what extent? For example, 75% from the manual – 25% composed. Note: After the instructions have been presented from the TAM, the administrator can paraphrase or further explain the instructions.	
How much time were students given to complete the test?	
How many students used the 10 minute time extension?	
Are any students provided additional time beyond the 10 minute extension? If so, is the student(s) LEP or 504?	
Were students allowed to turn in the test when they completed, before the test time expired? If so, were any materials given back to students during the session, after they had turned in the test? If so, did the administrator encourage the student to check his/her work before turning in the test? If so, were other students distracted by the administrator collecting completed tests? Please explain how many, and how long distracted.	
Questions	**Comments**
Where are test materials kept when not in use? Is the location secure (locked)? Please describe.	
Are test booklets left unattended and non-	

secured? If so, please describe.	
Has the contents of the tests been reviewed or examined by any school personnel before, during or after testing? If so, please describe.	
Have the contents of the tests been shared with students before or after testing? If so, please describe.	
Have any school personnel scored or graded any student responses before returning them to the school coordinator? If so, please describe.	
Have any of the tests or responses been photocopied, reproduced or kept by school personnel? If so, please describe.	
Are all materials – used and unused – accounted for, secured, and returned to the appropriate school coordinator?	

Questions	**Comments**
How many students are absent from this session that will be taking a makeup test session?	
Are there more than two makeup test sessions given in any one morning or afternoon?	
Are there any students in a session together taking different tests?	

Other Comments – Positive Practices, or Areas of Concern

Positive Practice – A procedure and or document beyond what is required, that enhances integrity or efficiency.

Concern – A practice or situation that has the potential to compromise integrity or security.

Situation	**Comments – note if Positive or Concern**

End of Regular Test Administration Form

LEP/IEP/Section 504/Accomodations

Questions	**Comments**
Is the room well lit, adequately ventilated, and	

free of noise and interruptions? If not, please explain.	
Is the room large enough so that students are not crowded?	
Is seating arranged to discourage copying?	
Two types of posters may not be displayed: Instructions for answering a reading extended-response question (e.g. the Reading Student-Friendly Rubrics). Definitions of root words and affixes listed in the Illinois Assessment Framework for Reading. Are either or both of these posters displayed in the room? If so, where in reference to the student view?	
Are dictionaries or thesauruses available for the students to use during the tests? If so, they must be removed, or the students instructed not to use them. Were they?	
Are desks clear of materials other than the allowed test materials? Allowed: • Test Booklet • Answer document • Pencils, pen for written responses, highlighter • Calculator for math grades 4 – 8 • State provided paper rulers for math grades 3 – 8 • Blank unlined paper for math grades 3 – 8, session 1 only • ISAT Mathematics Reference Sheet for math grades 7-8. Students with IEPs or 504 plans may have other materials as long as it is noted in their accommodation plans.	
Questions	**Comments**
Are more than two test sessions scheduled in a day? If so, how many? Is this a makeup session?	
Are students given a break between test sessions? How long?	
Are test sessions given in sequence?	

e.g. math session 1, then 2, then 3 If not, please describe. Note: different subjects can be interspersed, such as reading session 1 can be followed by math session 1. Exception: Students who've missed test sessions should test with their class upon their return. Their sessions may be out of order.	
Are any test sessions split across days? If so, please explain. Note: Any test session started must be completed by the end of that day.	
Questions	**Comments**
Do you see evidence that any test booklets have been opened or reviewed prior to the test? If so, how many? Note: Test administrators using a Reader Script should review the format of the Reader Script immediately prior to the first test session.	
Are there sufficient quantities of materials? • A Test Administration Manual • Test Booklets for each student • Answer Documents for grades 4 - 8 • Paper rulers for the mathematics test • No.2 pencils with erasers If not, how many of which items are short?	
Are any students using graphic organizers, word processors, calculators, additional scratch paper, or other aids? Please describe. Note: Aids must be identified in the student's IEP or 504 plan to be acceptable.	
For students testing with a Reader Script in a group: Are all students using Form 1?	
Are there Student ID Labels for each student? If not, has all this information been provided in the grids?	
Did all students write their names on the test booklets and answer sheets immediately prior to the first test session?	
Is there only one ID Label affixed to the answer document (3rd grade – on the test booklet)?	
Is the ID Label affixed in the proper location?	
If a Student ID Label was not available for a student, is there a Testing School ID label	

affixed in its place? If so, has the student's demographic information been entered manually on the demographic page by authorized personnel? If not, please describe.	
For testing with audiocassettes/CDs, was the equipment set up prior to the test and working properly?	
Questions	**Comments**
If there are more than 35 students in the room, is there a proctor present to assist the test administrator?	
Are tests translated for LEP students? Note: Only test instructions may be translated.	
Is the test administrator providing test instructions directly from the Test Administration Manual, or composing instructions from the test forms? If composing instructions from the test forms, to what extent? For example, 75% from the manual – 25% composed. Note: After the instructions have been presented from the TAM, the administrator can paraphrase or further explain the instructions.	
Are any reading tests being read to students?	
Are any students testing out-of-level? Example: Testing a grade 5 student with a grade 3 test.	
Has the teacher or proctor highlighted (or indicated in any way) key parts or passages for students, prior to or during the test?	
Has the teacher or proctor crossed out or indicated eliminating any multiple choice answers for the student?	
Are students testing with a Reader Script encouraged to request that any portion of the test be re-read as often as necessary?	
Are students using audiocassettes/CDs advised they can replay any portion of the test as often as necessary?	
How much time were students given to	

complete the test?	
How many students used the 10 minutes time extension?	
Are any students provided additional time beyond the 10 minute extension? If so, is the student(s) LEP or 504?	
Were students allowed to turn in the test when they completed, before the test time expired? If so, were any materials given back to students during the session, after they had turned in the test? If so, did the administrator encourage the student to check his/her work before turning in the test? If so, were other students distracted by the administrator collecting completed tests? Please explain how many, and how long distracted.	
For Braille and Large Print accommodations, are the responses (multiple choice and written) transcribed onto a scannable answer document or test booklet (grade 3) for scoring?	
Questions	**Comments**
Where are test materials kept when not in use? Is the location secure (locked)? Please describe.	
Are test booklets left unattended and non-secured? If so, please describe.	
Has the contents of the tests been reviewed or examined by any school personnel before, during or after testing? If so, please describe. Note: Test administrators using a Reader Script review the Reader Script immediately prior to the first test session.	
Have the contents of the tests been shared with students before or after testing? If so, please describe.	
Have any school personnel scored or graded any student responses before returning them to the school coordinator? If so, please describe.	
Have any of the tests or responses been photocopied, reproduced or kept by school	

personnel? Note: Photocopies may be made to provide a test accommodation, but must be returned with the original materials.	
Are all materials – used and unused – accounted for, secured, and returned to the appropriate school coordinator?	

Questions	Comments
How many students are absent from this session that will be taking a makeup test session?	
Are there more than two makeup test sessions given in any one morning or afternoon?	
Are there any students in a session together taking different tests?	

Other Comments – Positive Practices, or Areas of Concern

Positive Practice – A procedure and or document beyond what is required, that enhances integrity or efficiency.
Concern – A practice or situation that has the potential to compromise integrity or security.

Situation	Comments – note if Positive or Concern

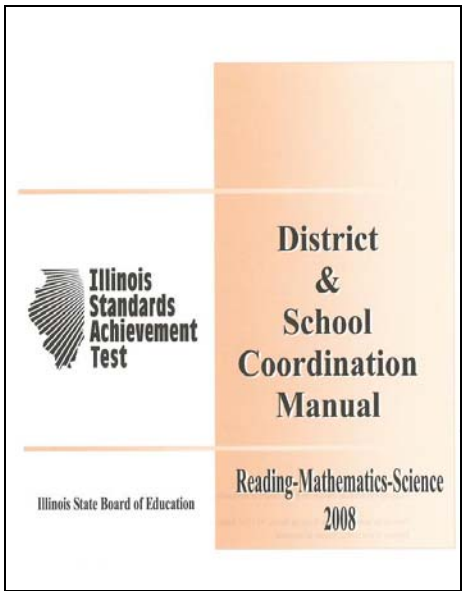
End of LEP/IEP/Section 504/Accomodations

2.d. Results of the assessments, such as general reports on eligible student participation within schools and school districts, highlighting aberrations from expected results (e.g., only 50% of eligible minorities were assessed in school X, or only 60% of students were assessed without accommodations in district Y).

Following the site monitoring process and results study, Pearson and ISBE reviewed and compared files that documented students registered to test compared with students tested and found no significant aberrations. With the large population of students in Illinois, it is expected that a small number of students will move within the state or outside of the state during the testing process. No significant aberrations related to demographic factors were noted.

3. Description of the process of packaging, returning, and tracking of completed, ruined, and unused assessment materials, including procedures used to locate and retrieve materials not returned in a timely manner.

ISBE and Pearson collaborated in the development of procedures that would help coordinators collect and return all materials for security processing. Contained in the District and School Coordination Manual are step-by-step procedures that are to be followed, including a check sheet to verify each step and procedure has been followed.



POST-TEST INSTRUCTIONS

COMPLETING THE TESTING SCHOOL IDENTIFICATION (ID) SHEET

There is **ONE** Testing School ID Sheet for tested and non-tested students at each grade. Grade 3 test booklets and answer documents for tested and non-tested students are placed under the single ID Sheet completed separately for each grade. The ID Sheet is placed on top of the answer documents or grade 3 test booklets returned to Pearson for scanning/scoring. This ID Sheet is illustrated on page 57.

Do not alter any of the pre-printed or pre-slugged information on the ID Sheet.

Complete and return a separate Testing School ID for each grade tested at the school.

There are four grids/boxes on each ID Sheet.

- **Box 1** (TESTING SCHOOL INFORMATION BOX): This information is pre-printed based on the pre-ID file Pearson received from ISBE. It contains the Testing School name (where the answer documents or grade 3 test booklets are being returned from), the city where this school is located, and the district the Testing School belongs to. Check the information in these boxes for accuracy.

- **Box 2** (TESTING SCHOOL RCDTS CODE) is pre-slugged – this is the unique 15-digit code assigned to the Testing School by the State of Illinois.

NOTE: Check the information in boxes 1 and 2 for accuracy. If the information is inaccurate, do not use the ID Sheet. Contact Pearson's Illinois Customer Support Center at 1-800-627-7990, state code 814, for replacement ID Sheets. Blank Test School ID Sheets are not provided, nor are they orderable via additional orders.

- **Box 3** (GRADE) – Darken the circle next to the appropriate grade of the documents being returned under the ID Sheet. Each ID Sheet is specific to a grade, so do NOT mix grades under any single ID Sheet. The grade 11 selection is for IAA only.

- **Box 4** (TOTAL NUMBER OF ANSWER DOCUMENTS UNDER THIS SCHOOL ID SHEET) Write the number of documents being returned under the ID Sheet in the boxes and then darken the corresponding circles in each column. Information in box 4 should be right aligned and leading zeros should be included. Example of the Testing School ID sheet is shown on page 57.

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II. Coordination Activities of the School

CHECKLIST: MAJOR ASSESSMENT ACTIVITIES OF THE SCHOOL COORDINATOR

Before Testing

____ Identify test administrators and proctors.

____ Announce the test to teachers, students, and parents.

____ Receive and secure test materials. **Save the boxes your materials arrived in for return of test materials to Pearson.**

____ Inventory materials for your school.

____ Verify test booklet barcode ranges of test booklets for your school using the School Test Booklet Security Checklist.

____ Record and verify test booklets given to each test administrator using the School Test Booklet Security Checklist.

____ Train test administrators and proctors.

____ Address unresolved questions to the District Coordinator.

____ Review and monitor test preparation activities.

____ Ensure test security throughout the testing cycle.

____ Distribute test materials to test administrators immediately before testing.

____ At each grade, create a roster of all students who take ISAT tests.

During Testing

____ Monitor test administration.

____ If possible, make arrangements to have no P.A. announcements broadcast during testing.

After Testing

____ At each grade, create a roster of all ISAT-eligible students who did not take any ISAT tests. This includes students who were absent, as well as students who are exempt (e.g., medical exemption). An answer document or grade 3 test booklet musr be returned for these students.

____ Collect and secure test materials from test administrators. Verify and record the return of all secure test materials from each test administrator using the School Test Booklet Checklist. Make a copy of the completed School Test Booklet Security Checklist for your files.

____ Complete and return an *Unreturned ISAT Test Booklet* form if necessary. Send the original to Pearson and keep a copy for your records. (See page 23).

____ If no Student ID label is available for a student, affix a Testing School ID label to the student's answer document or grade 3 test booklet and complete the necessary grids on the demographic page.

____ Sort materials.

____ For the grade 3 test booklets or answer documents for each grade, complete a Testing School ID Sheet for Tested Students and Non-Tested Students.

____ Box scorable materials separately from nonscorable materials.

____ Affix a scorable (green) label and FedEx Material Tracking label to each scorable material box, and nonscorable (red) label and FedEx Material Tracking label to each nonscorable material box, and number each box in the appropriate section of the return labels. It is acceptable for you to consolidate test materials for your school into fewer boxes than they came in.

____ Return boxed materials to the District Coordinator at least one day before the scheduled pickup day. Check with your District Coordinator about the scheduled pickup day.

Retrieving ISAT Test Materials

After administration, districts returned test booklets and other testing materials using pre-arranged pick-ups. Upon receipt, Pearson checked-in and scanned the answer documents, header sheets, and the test booklet security barcodes.

All necessary materials and instructions were provided so after test administration, personnel at school districts/schools could assemble, box, and label used testing materials for collection. Pre-arranged pick-up of test materials and ground transport from the districts to the processing center were also arranged and scheduled. Districts were notified of pre-assigned pick-up dates when they initially received their testing materials, allowing district staff to anticipate the pickup well in advance and allowing ISBE to monitor the timely return of materials.

Pre-printed mailing labels were provided for the return of materials after the administration. These color-coded labels (purple for scorable materials and yellow for non-scorable materials) are used to confirm that the number of boxes the district indicated they shipped matched the number of boxes received. The different colored labels also allow Pearson personnel quick differentiation between scorable and non-scorable materials.

Pre-Arranged Pick-ups

Prior to test administration, a return shipment schedule of prepaid transportation for all districts was coordinated and communicated to FedEx. This allowed for materials (both scorable and non-scorable) to be picked up within the timeframes dictated by the ISBE. To facilitate and expedite the material check-in, security and scanning processes, districts were instructed to return scorable and non-scorable materials separately using different colored labels.

The on-line tracking system allowed district test coordinators to track the shipments from pick-up at their district to delivery at Pearson.

Return Materials Check-In

When boxes of materials arrived for processing, receiving staff scanned the return barcode labels that identify the type and origin of the material. Tracking systems generated detailed reports listing the number of boxes received from each district and school which were reviewed and compared to the number of boxes anticipated. Incomplete shipments or quantities appearing less than expected were held from processing one day. This allows time for the noted shortages to be delivered and reconciled.

When secure answer documents were returned for processing and after materials were checked into the ISAT Processing Center, counts for answer documents were visually verified against what has been indicated on the School and Grade Identification Sheet.

After this verification step, materials are assembled for processing and subsequent OMR and image capture scanning. During scanning processes a discrete identification number was printed on each page of each student's answer document. This unique document identification number (PAS or Print After Scan number) was recorded on the data file so that an individual document could be located in a specific batch and stack at any time during processing or post processing when batches have been completed and sent to secure storage. This process guards against misplacing or removing an individual record, a single sheet within a document, or any number of records from secure batches.

As secure batches moved through processing, they must pass multiple checks and edits. At the Image Edit station, a second student count (n-count) check was completed based on a precise scanned machine counts and also compared to the number indicated on the School and Grade Identification Sheet. Any discrepancy in n-count alerted the operator for verification. In the event that there is a substantial difference between n-counts, the operator alerted a member of the program management team. The processing batch was held at the Image Edit station until the discrepancy was resolved and the batch was cleared to continue processing.

After student answer documents were processed, they were strapped in bundles, identified by batch and stack number and the secure location was recorded by program/pallet number in the tracking system. These procedures provide that an individual student document or an entire district can be tracked, located within minutes and retrieved from the secure location.

C. Scanning, Editing and Processing

1. Description of procedures used to assure appropriate tracking of materials after receipt (e.g., procedures for accurately tracking materials through opening, processing and physical storage).

Data Preparation Procedures

Upon receipt of materials, receiving staff opened boxes returned by the districts, sorted the test materials, and checked answer documents against the Answer Document Packing List (ADPL), which was completed and returned by the school district. The information on the ADPL was transferred to the district database for later verification, and the answer documents were grouped into a processing unit referred to as a "batch." This information was entered into an online workflow management system (WFM).

The WFM allows for the tracking of materials from receipt, through scanning and editing, and finally to secure storage.

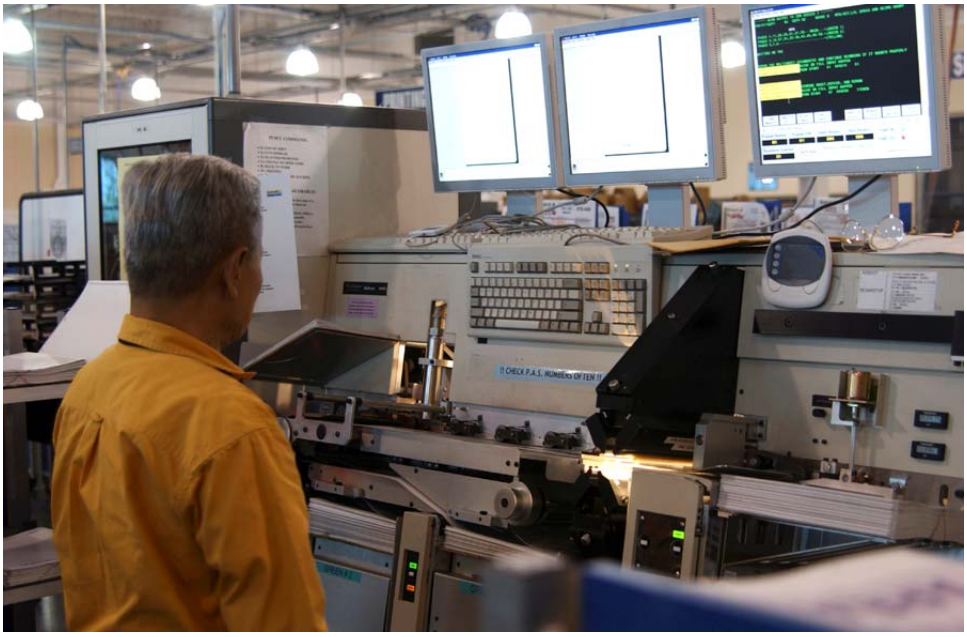
- Staff located in the "Data Preparation" department registered the batch in the WFM system recording the date of receipt as well as the number and type of documents received.
- Departments/workstations recorded the time a batch enters and leaves a work area into the WFM system as well as any status comments. The WFM system maintained a record of each batch at each stage of processing.
- The WFM generated daily work flow reports so management could work with department managers to adjust priorities as necessary to meet processing commitments.

2. Document scanning procedures

- **Description of document scanning procedures.**
- **Description of quality control mechanisms to ensure reliability and accuracy of scanning procedures.**
- **Description of image storage procedures.**

Pearson utilized proprietary high speed scanners to capture full page images of student response documents at high resolution and simultaneous transferred the image to storage resulting in the student data file. This included capturing student demographic data, constructed responses, as well as response bubbles. Mark discrimination software evaluated each mark in a grid to determine if a mark is valid or non-intended, such as a smudge, or erasure.

ISBE's third party representative, Joshua D'Intinosanto, visited the Iowa City facility to document and monitor the scanning capabilities as they related to ISAT documents. Scanners captured a complete page image and, after scanning, divided or "clipped" the image into smaller images that contained multiple choice and constructed responses. The constructed responses were later electronically delivered and accessed by professional scorers at the ISAT scoring center in Champaign, IL. The specific clipped areas are captured based upon their data characteristic (bar code, demographic field, multiple choice or constructed response).



A unique identification number system (UIN) for each page of a student's answer document allowed scores generated from the images to be electronically merged with the appropriate student record for subsequent scoring and reporting. This identification system also allowed the answer document to be recalled expeditiously should there be a question or concern about the image.

Scanning Multiple-Choice Responses

For multiple choice responses, scanners read all possible marks for each specific response and selected the darkest mark as the intended response. Each possible mark is graded on a 16 point gray scale. If two or more marks are collected and one is four points or more darker, that mark is collected as the intended mark. For example, if a student chose A and it was marked at a darkness level of 13, but another mark was present at position B that was erased and was recorded at a darkness level of 7, the scanner would select A as the intended response. Experience has indicated that a threshold of four is a very accurate measure between intended and unintended marks. Marks closer in value such as 14 and 12 are very hard to discern with the naked eye.

Reliability

Before a batch of answer documents is scanned, the scanner operator ran a utility program that analyzed all the functions of the scanner to make sure each operation is functioning properly. After a positive response from the utility program was received, the operator scanned a specific control set of scan sheets. These scan sheets tested the image read heads by presenting a specific set of criteria that must be read precisely by the scanner. Passing this test verified the scanner was reading within an acceptable range and was ready for scanning. Should any of these QC tests have failed, the scanner would have been taken out of service and an in-house service technician would have been dispatched for corrective action.

While the scan operator waited for all functions of the utility program to verify the scanner was ready for operation, the operator would randomly place similar validation sheets throughout the batch of documents. This allowed the scanner to automatically verify during scanning that it is reading images appropriately and that no change in read level or accuracy changed during the batch.

Image Storage Procedures

Pearson maintains a highly secure, disaster proof data center in its Iowa City location. All ISAT data was stored at this location and backed-up in secure offsite locations. Immediately following the batch scanning process, data files were stored in this secure data center. ISBE and Harte-Hanks representatives toured these data centers and have verified security and back-up procedures. Only properly cleared Pearson staff have access to this information, and the data center is off limits to all but key personnel.

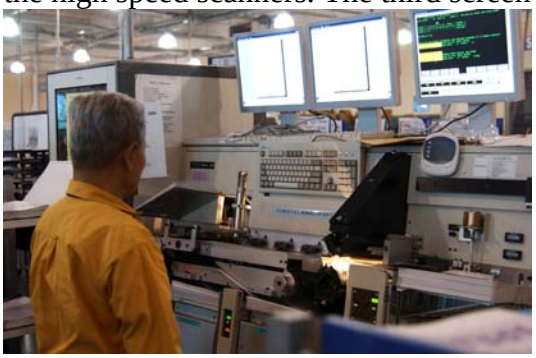
When ISBE needed access to data files and images, the Pearson program team placed files on a SFTP site for ISBE. Passwords were forwarded separately for each transfer as an added measure of security.

3. Data translation and validation

3.a. Description of procedures used to translate from document images to header, overprinted, barcode, and item-response data (e.g. the alternative chosen on multiple choice items, or the text written for Open-Response items)

Pearson utilized a proprietary ScanTools software application for scanning and capturing ISAT images. The scanners captured a complete scanned image of the answer document.

Scanner operators had three screens available to them during scanning. On two of the screens, they can see the images (front and back) captured as the documents pass through the high speed scanners. The third screen allows for the operation of the scanner.



Following image capture, a unique student identifier number (UIN) is assigned to each electronic test booklet. The ScanTools software clipped various portions of the images for different purposes. For example, multiple choice responses were assigned digital values for darkness allowing the student's intended response to be selected and placed in

the student's record, while constructed response areas were "image clipped" and placed into a queue for performance scoring by scoring professionals. Following the performance scoring, the score was returned to join the multiple choice portion in the student's record for final scoring.

3.b. Description of quality control procedures used to validate accurate translation from document images to non-image data, including methods of identifying erasures, distinguishing stray marks from intended responses, and detecting aberrant responses.

Images and non image data resides in the student record in different fields. When the student answer sheet was first scanned, the placeholders for the performance scores were blank while the image was placed in the student record. After a professional scorer evaluated the constructed response images and applied scores, the scores were placed in the reserved location for these scores. Both images and performance scores were maintained.

Distinguishing stray marks from intended responses is described above under "Scanning Multiple-Choice Responses".

3.c. For multiple choice items, the percentage of students selecting each alternative as the correct answer.

A student score file was provided to the test development contractor. The item development contractor provided item analyses reports detailing the numbers of students who chose each possible response choice. For the item developer, this information allowed analysis of the items to determine item performance statistics.

D. Scoring-Open Response

1. Description of procedures used to assure appropriate tracking of student responses through the scoring process.

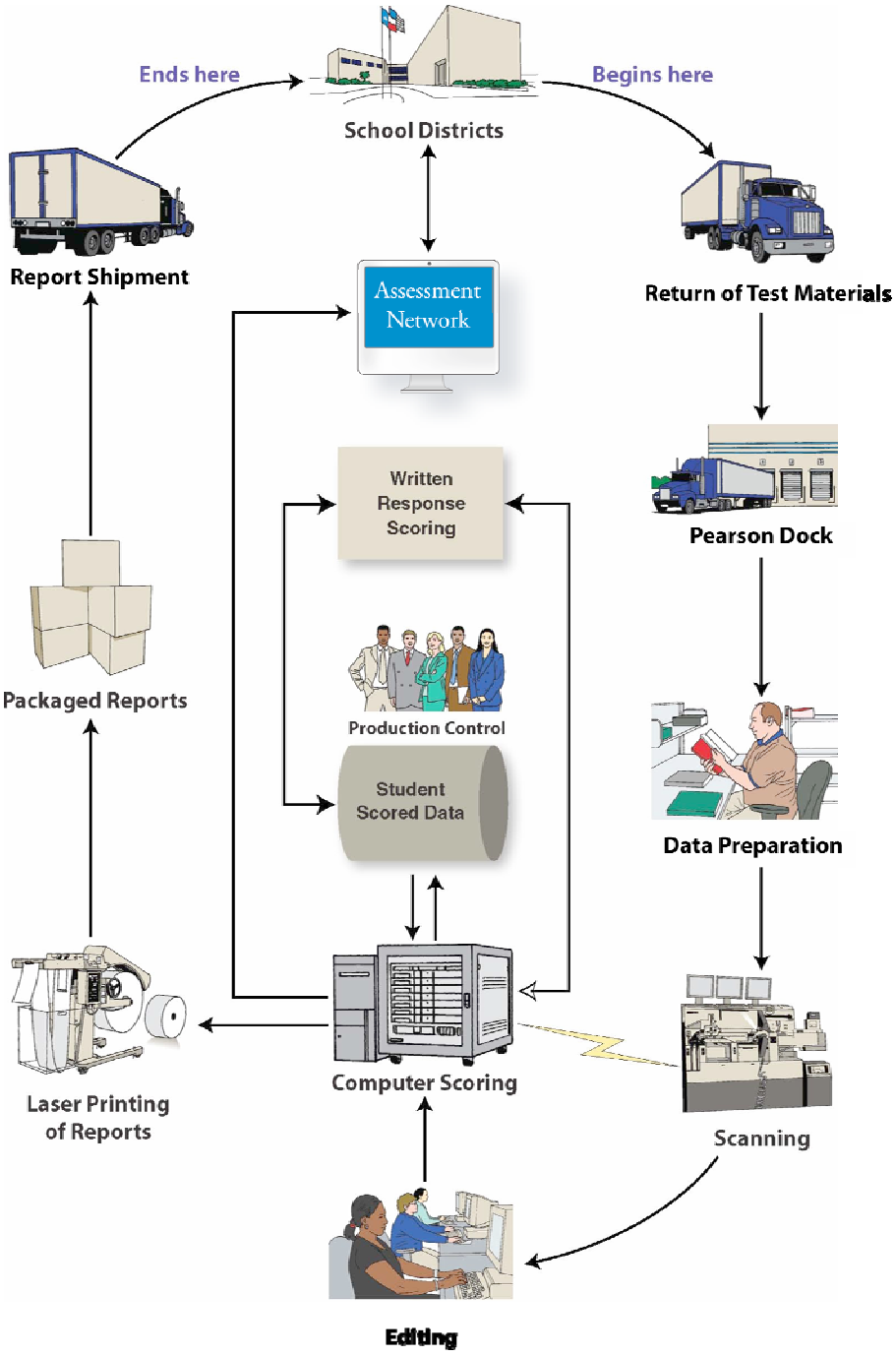
As described earlier (C.2), a unique student identifying number was assigned to each student file upon initial image scanning. This unique number is attached to each portion of the test as it is parsed out for appropriate scoring, such as multiple choice scoring and performance scoring of constructed responses.

This approach allowed scoring systems to quickly and accurately pull the various score information back into the student's data record.

For example, the ISAT test is a combination of multiple choice and constructed response questions. Following image scanning, the constructed response fields were image clipped and forwarded with encryption technology to the performance scoring center in Champaign, IL where the clipped images were presented to scorers on-screen.

Following the performance scoring process described later in this section (#3), the student's performance scores, tied to the unique student identifier were again encrypted and transmitted back to the data center where the student's master record was updated with the student's scores.

Shown in the image below is a graphic view of the flow of student record information beginning with the return of ISAT materials to Pearson.



2. Description of procedures used to score multiple choice items.

Following the image scanning process, documents were edited for completeness according to ISBE's specifications. The editing process focused on cleaning up demographic information, monitoring data entry such as a large number of light marks or double marks and to correct damaged forms.

Following the editing process, records were updated and images were made available for performance scoring as described below (#3).

Following the completion of performance scoring, the entire student file was encrypted and forwarded to Harcourt for the scoring of multiple choice answers and additional summary level scoring activities.

3. Description of procedures used to score Open Response items.

3.a. Process of selecting raters.

Pearson had sites in Chicago and Champaign, which were used as a hiring base for the ISAT performance scoring process. The overall goal was to use only IL citizens as performance scorers. Pearson hired approximately 500 scorers for the Champaign, IL scoring center and supplemented these scoring efforts with approximately 600 scorers located in remote scoring locations across Illinois.

The hiring process is detailed below:

1. Through web based hiring services such as Monster.com and others such as the ISBE web site, the Pearson web site and through print advertisement in various newspapers throughout Illinois, a general recruitment message was broadcast looking for qualified scorers with bachelor degree or higher education level.
2. Pearson used an Interactive Voice Response (IVR)/Web based recruitment tool to facilitate the hiring of the reader pool. This tool allowed the Champaign based Employment Team to screen candidates, review qualifications, and access skill sets prior to being selected for an interview.
3. About 4 to 6 months prior to test administration the IVR/Web based recruitment tool was scripted according to the program reader requirements to produce potential scorers.
4. The screening process using the IVR/Web based recruitment tool began approximately 12 weeks before the test administration.
5. Telephone or in person interviews began approximately 6 weeks prior to the test administration. Specific questions were directed to every candidate. These questions were developed to ensure relevant data is collected.
6. Initial verification of education, prior experience, and work status was collected through the Pearson PEARL Solutions Technology IVR/Web based recruitment program. Verification of this data was provided in hard-copy documentation to Pearson and stored in the HR system.
7. Offer letters were mailed to selected distributed candidates and offers were made in person to regional scorer candidates with the understanding that hiring was contingent on the validation of this information.

3.b. Process of training raters.

Prior to scorer training, scoring directors conducted scoring supervisor training. A primary goal of this session was to ensure that scoring supervisors clearly understood the scoring protocols and the training materials. Scoring directors discussed with scoring supervisors all scoring guidelines and procedures. Scoring supervisors were taken through all anchor, practice, and qualifying sets, with focused discussion led by the scoring directors. Scoring supervisors then went through the training a second time, when scorers were trained, to reinforce their expertise in the scoring criteria.

Scoring supervisors were expected to carefully read and review annotates of all training materials so that they could readily assist in scorer training and respond to scorers' questions during training and scoring.

Prior to scoring any ISAT tests, all trainees were required to complete an item-specific online training course containing multiple modules including a qualifying test. Each module must be completed in sequential order, and trainees must pass the qualifying test to be certified for participation in scoring. There is one unique course for each operational constructed response. All of the student responses, corresponding scores, and explanatory annotations contained in the training modules were approved by ISBE prior to use. The modules included the following:

1. Project overview
This section contains information on the ISAT program and how to use the image scoring system.
2. Explanation of the Scoring Methodology
This section introduces the fundamental concepts involved in applying the scoring criteria and includes the definition of key terms.
3. Scoring versus Grading
This section highlights the difference between evaluating student responses for a standardized assessment and grading student assignments in a classroom.
4. Reader Bias
This section heightens trainees' awareness of potential biases that can interfere with accurate and consistent scoring.
5. Item Prompt
This section introduces stimulus material from the student test booklet. Trainees were shown the task presented to the student, along with any additional instructions or associated source material, such as a graphic images or associated stories.
6. Rubric
This section presents the ISAT rubric for the item with descriptions of each score level. An FAQ section provides additional guidelines on how to properly apply the scoring criteria.
7. Anchor Set
This module contains annotated exemplar papers that are chosen to clearly represent each designated score point. These student responses served as the primary points of reference for scorers as they internalize the rubric during training and were referred to constantly during the length of the scoring process. All scorers have access to the anchor set whenever they are scoring and are directed to refer to it regularly. This set may include

different types of responses that earn each score, or it may be designed to reflect a continuum of performance within each score level. There were typically 2-4 anchor papers for each score point value on the rubric.

8. Training Sets

These sets of student responses incorporated examples representing each score point and were used during training to help scorers become more experienced in applying the rubric. Some papers clearly reinforced the scoring guidelines presented in the anchor set; others were selected because they represent borderline responses or unusual approaches to the task. The use of these training papers provided guidance to scorers in defining the line between score points and in applying the scoring criteria to a wider range of types of responses. A typical Training Set module contained two sets of 10 student responses. After completing each Training Set, trainees checked the accuracy of their scores compared with "true scores," and reviewed the specific annotations explaining those true scores.

9. Qualifying Sets

Quality scoring is vital to the success of the ISAT; therefore all trainees were required to pass a qualifying test before being certified to score. These sets of responses incorporated a range of student performance levels and were designed to confirm that trainees could correctly assign the full range of scores. Candidates must have demonstrated acceptable performance on these sets in order to qualify to score ISAT responses. Standards and rules for qualification were determined and approved in consultation with ISBE.

10. Condition Codes and Alert Papers

The training in this section provided instruction on assigning Condition Codes for nonscorable responses, and alerting responses that might indicate a student in danger. After each scoring administration for ISAT, all training materials were made available to ISBE in both paper and electronic format so that they may be released to the public at the end of the school year.

3.c. Process of the calibration process.

Online calibration sets were sent to groups, subsets of groups, and individual scorers, as needed. These sets are used to proactively promote accuracy by exploring project specific issues, score boundaries, or types of responses that are particularly challenging to score consistently.

Scoring directors administered calibration sets as needed, particularly for items that were more difficult. Potential calibration responses were identified by scoring supervisors and scoring directors through the backreading tool of the image scoring system, who then prepared them for inclusion in sets. These responses were selected as examples that help clarify particular scoring issues, helped to more clearly define the lines between certain score points, and to reinforce the scoring guidelines as presented in the original training sets.

Scoring directors created sets of one to three responses that were sent to all scorers, and to a subset of scorers, to score independently. During scoring of the online calibration

sets, scorers had an opportunity to ask questions of the scoring supervisors and to seek clarification of the included annotation.

The online calibration process could also be used to augment the validity process by gathering statistical information, although the prime intention was that it be used for continuing training and discussion. As opposed to validity papers, which are chosen as clear examples to transparently check accuracy, calibration sets may be "on the line" between score points or unusual examples that are challenging to score, and therefore useful for reinforcing the scoring rubric.

3.d. Description of the procedures followed in assigning student responses to the various raters.

Rather than assigning student papers to scorers by subject and grade level, the assignment of student responses to scorers was handled programmatically by Pearson's image scoring system. Furthermore, the assignment of papers was randomly generated via the image scoring system. Following the completion of a score by a scorer, the next student response in the queue was forwarded to the next available scorer for the specific grade level and subject. Second reads for inter reader reliability occurred with 10% of student responses.

3.e. Description of the procedures for reading and scoring student responses.

Following training and certification, scorers utilized an image scoring platform.

Student responses were presented onscreen and scorers were provided a variety of tools, including training materials should they need additional resources. Instant messaging tools allowed the scorer to communicate with a scoring supervisor if additional assistance was needed.

Along with the stimuli and an image of the student response, the appropriate rubric choices were also made available in a selection box. After the scorer made the appropriate selection, and verified the selection, the student score was affixed electronically to the student record and a new student's work is presented.

3.f. Description of special procedures for reading and scoring responses of students tested with accommodations (if any).

At the point of performance scoring, all student responses are treated equally and presented as an image to scorers.

If a student has an accommodation such as large print or Braille, the district and school test coordinators are instructed to transcribe the student's responses (multiple choice and constructed response) onto the corresponding grade level answer document. Once this occurs, the materials are treated the same as all others in the scanning, editing and scoring process.

3.g. Quality control mechanisms used to monitor rater performance, trigger retraining, and dismiss poorly performing raters

Reader Performance and Project Status Reports
A comprehensive set of statistical reports allowed ISBE staff and Pearson scoring directors to monitor progress and scoring trends on an ongoing basis throughout the performance scoring portion of the project. While scoring supervisors closely monitored the statistics of the team members, scoring directors monitored the group as a whole and give direction to the scoring supervisors

By reviewing real-time scorer performance statistics, supervisors quickly identified particular scorers whose performance falls outside of group norms, while also keeping close track of the group performance as a whole. Reports provided daily and cumulative statistics on a wide range of topics and provided individual and group average agreement percentages. ISBE and Pearson used the information to monitor accuracy and scoring patterns at the individual and group level and to help inform backreading and retraining efforts.

Reports are generated automatically by the image scoring system and are updated twice daily to a website, at approximately noon and at 5:00 p.m. Central Time. Only Pearson and ISBE staff had access to these scoring reports.

3.h. Quality control mechanisms used to assure valid and reliable student scores, including descriptions of conflict resolution procedures for scores rating the same response more than one category apart.

The Validity Process
In contrast to paper processes that involve scorers taking entire validity sets once or twice a day, the image scoring validity system is less intrusive, but ongoing.

- The validity responses were interspersed with live responses to each scorer at a regular interval throughout the scoring day, so that accuracy and scoring trends were tracked more comprehensively. Scorer performance was tracked throughout the day, rather than just in the morning or afternoon.
- Since validity responses were routed transparently to each workstation, the scorer's judgment was completely independent and not affected by the knowledge that his or her score was being compared to a pre-assigned score.

- This method prevented the test anxiety that many employees feel (which can interfere with the psychological process and possibly skew results) when they know they are being tested. This blind validity process is therefore acknowledged as a more accurate reflection of scorers' true tendencies.
- With new validity results being constantly compiled throughout the scoring day, scoring supervisors and scoring directors were able to track reader performance more closely and more often. The image scoring system automatically generated a report that compared the scores given by individual scorers with the pre-assigned validity scores. This report was used to monitor the accuracy of individual scorers and the room as a whole. If a scorer dropped below an acceptable percentage of accuracy, that scorer was required to receive individual feedback and/or retraining before being allowed to score any more responses on the given item.
- As scoring progressed, validity responses were identified through the image scoring system itself. Scoring supervisors used the backreading tool to identify responses that serve as clear examples deserving of certain score points. They escalated such responses for review to scoring directors. Scoring directors selected from this pool of responses to be used for validity purposes, choosing valuable examples that represented the full range of possible scores. Then, the selected responses are transparently routed to all scorers assigned to that item.
- On occasion and for a variety of reasons, a scorer may have passed the screening process, training process and certification process, but failed to score accurately. In these rare instances, the scorer was pulled off line and offered training and an opportunity to re-certify. If they failed to meet the scoring criteria, they were dismissed from the scoring program. Student responses previously scored by this scorer were then reviewed for accuracy by scoring supervisors and rescored as needed.

3.i. Documentation of the prevalence of implementing the various quality control mechanisms.

The Performance Scoring operation has developed and implemented an independently certified, systemic approach to providing quality services, which has achieved the internationally recognized ISO 9001:2000 standard for quality assurance. To achieve and maintain ISO 9001 certification, Pearson created a quality system designed to maintain consistency and uniformity throughout the scoring processes for all projects. The ISO certification demonstrates the consistent, verified use of mature, repeatable quality management processes.

4. Results of Open Response scoring

4.a. Inter-rater reliability results.

See 4.c. below

4.b. Intra-rater consistency results.

See 4.c. below

4.c. Summary statistics and score distributions.

The performance scoring operation tracked, reviewed and acted upon the performance statistics for each grade, subject and item. Show below is the group-level summary of detailing both daily and cumulative inter-rater reliability statistics for a single grade, subject and item. Performance scoring supervisors forwarded any note regarding findings and made statistics for each item available to ISBE for review. An example of one report is on the following page.

Run Date: 07/07/2008

Run Time: 03:13:39 PM

PSC Qua
IL ISAT 7

Grade	Site	RIB ID	Item/Trait	Item Description	Valid	
					Perfect Agreement	
					Daily	Cum
08	Chom		08IL08MA_74	Boat Rentals		
			MATH KNLG		0	93
			STRAT KNLG		0	89
			EXPL		0	73

Numbers in blue italics are previous final numbers

***TBR - To Be Resolved**

****Comp - Resolutions Completed**

Run Date: [illegible]
Run Time: 12:07:[illegible] PM

ISC Quality Management Report Extended Guide
IL ISAT 767056 SPR 2007 OP/767-056 for 05/18/2007

Report #: [illegible]
Page 1 of 1

Grade	Site	RSI D	Item/Trait	Item Description	Validity %: Perfect Agreement Daily	Cum	Total Non Adj Daily	Cum	Reliability %: Perfect Agreement Daily	Cum	Total Non Adj Daily	Cum	# of Resolutions TBR*	Comp**	Distribution Current	Mean	Percent Complete
04	Chem		[illegible]	[illegible]											0 1 2 3 4 BL OT FO		
			[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
*TBR - To Be Resolved
**Comp - Resolutions Completed

E. Archival Data Storage

1. Description of the database used to store ISAT data (including images), including capacities for relational access to data by the Administration Contractor and ISBE staff for downloading and updating purposes.

All ISAT data (including images) are stored, and backed-up in remote locations, on industry standard relational database platforms. These databases reside within disaster proof facilities and are monitored 24 hours a day by IT professionals.

When ISBE requests confidential data, such as the Student Scored File and Summary file, the information is placed on a secure, password protected SFTP site that was previously set-up for Illinois.

Secure File Transfer Protocol (SFTP) is a subsystem of the Secure Shell protocol. SFTP has many advantages over the non-secure FTP. SFTP encrypts both the username/password and the data being transferred. Utilizing SFTP for sharing files and documents with customers balances the need for access with security requirements. A SFTP site is one of the safest ways to make specific data available to customers without exposing other critical company information to the public network.

At ISBE's direction, contractors exchanged files via a secure, password protected SFTP site. The process for exchanging the files was to send an email letting the receiving party know that a file has been placed on the SFTP site. The file name, location and file count was provided in the email. A secondary and completely separate email was then provided to the recipient stating nothing more than the password.

2. Description of the quality control mechanisms used to ensure data integrity throughout the data entry and data update processes.

Encrypted Data Protects Transmissions

Proper security is absolutely critical for secure testing programs, and our SFTP sites preserved security. All data that needed to be secured was be encrypted during transmission, and data would be exchanged using a SFTP site residing on a secure SFTP server. Files posted to our website are protected using 128Kb encryption; the industry standard for secure transactions.

Maintaining web-based security is an ongoing concern at Pearson. Our quality control auditors perform internal audits of our testing programs, evaluating current procedures and recommending additional steps to strengthen security.

F. Reporting

1. Description of the procedures used to provide for reporting services via the web, including security measures to protect confidential data.

For the 2008 reporting cycle, web based services for reporting were not provided. ISBE received the student scored file and summary file via a SFTP transfer process described above.

2. Description of procedures used to disseminate individual hardcopy/electronic results to various local schools and district, and ISBE.

Results were disseminated with different processes depending on their format (electronic or hardcopy).

File Exchange/Final Files for Reporting
ISBE directed contractors (Pearson and Harcourt) to exchange files via a secure, password protected SFTP site. The process for exchanging the files was described above.

Harcourt provided Pearson with the final score results through an ISBE and Harcourt approved file layout format. Two types of files, a student score file containing raw score and scaled score information and a summary file containing aggregate level information were delivered to Pearson. These files were received through the SFTP transfer process described above.

After Pearson received the files from Harcourt, Pearson implemented a series of edits to verify files met the pre approved format and data standards. Any issues with layout or data formatting resulted in communications between ISBE and Harcourt to resolve the issue. If necessary, a revised file was created and delivered to Pearson. Upon completion of a clean file, Pearson utilized a full sequence of testing procedures to verify files could be successfully processed through the reporting phase.

Upon receipt of the clean file validation, the file was processed through the reporting systems to validate reporting systems. To test and validate reporting systems, all required reports were generated utilizing the simulation test files previously agreed upon with ISBE. These reports were used as an internal and external system test to validate correct placement of reporting data presentation. ISBE was provided these reports for confirmation of data placement and presentation.

After ISBE review and approval of the simulation reports and final reporting files, Pearson proceeded to the next step in the reporting cycle, the Pre Blue-Dot.

The Pre Blue-Dot Process
The pre blue-dot is a process utilized at Pearson for conducting a preliminary system test of the production environment and is conducted prior to the live production test (blue

dot). The purpose of the Pre Blue-Dot was to validate production systems accuracy and readiness. The pre blue-dot system test utilized production code and production data.

Pearson used extensive check lists as well as program documentation as guidance to perform the software pre blue-dot testing. Program documentation detailed ISBE requirements which were provided to the IT personal to complete system design and testing protocols. These included the Customer Requirements Allocation Document (CRAD) which documents high level customer requirements, the ISBE approved Reporting Questionnaire which documents detailed reporting requirements for each unique type of report and the ISBE approved report mock ups which provide report layout specifications. If any deviations were noted during the pre blue-dot process, they were documented and tracked to completion in a highly controlled change tracking environment. Any necessary changes or edits needing external approval were reviewed with ISBE and noted in the change process.

ISBE required that a sample of live data be utilized for a customer acceptance test, ("Bellwether Reports") and that all required reports, both paper and electronic, be produced for this test. The pre blue-dot served as an excellent platform for the bellwether report process and therefore, the Bellwether reports were combined with the pre blue-dot process. ISBE provided a list of districts and schools that allowed for a diverse representation for the Bellwethers process.

ISBE sent three experienced staff members to Pearson in Iowa City, IA for two days to review the Bellwether reports. The program team tracked issues found during the Bellwether process, provided updates or changes to ISBE immediately and received sign-off of the Bellwethers while ISBE staff members were at Pearson.

Following ISBE bellwether approval and internal Pearson sign-off by the program team, IT staff, Testing Staff and other affected groups, Pearson closed the pre blue-dot process and prepared for the Blue-Dot process.

The Blue-Dot Process

The Blue-Dot documented a sequence of defined activities used in the first run of live production data through the production environment. A single district will be submitted into the production environment. No other production will be released until the single submission is approved by all parties defined in Pearson's blue dot process.

The Blue-Dot served as the transition point from the planning phase to the delivery phase and from system development and testing activities to the production environment. The formal process allows all participating functional groups to:

- Formally accept the readiness of a program for full production
- Confirm receipt and comprehension of processing specifications
- Confirm the receipt of required production materials for the project

During the Blue-Dot process, the Program Team, IT, Testing and all affected departments must review and sign off on the first submission. Production departments utilized checklists created for that specific function against the live run. Program Team members also visited the production facility and checked the reports to ensure the reports were being processed, collated and assembled according to agreed upon specifications. General status and an update of the successful blue-dot were communicated to ISBE. After all internal teams signed off on the Blue-Dot batch, the process was then allowed to move into full production.

Printing and Shipping of the ISAT reports and media

Both paper and media reports for the 2007 reporting cycle were produced and shipped. ISBE's third party representative, Joshua D'Intinosanto, traveled to Pearson's Cedar Rapids, Iowa location to view and examine the report printing, assembly, and shipping processes.

The printed reports included the Individual Student Reports (ISR), the District Performance Profile, the School Performance Profile, the District Roster by Grade, the District Roster by Subject, the School Roster by Grade and Subject, and the School Roster All Subjects.

The ISR was printed in an 11"x17" format on pre printed form and was folded to 8½"x 11". Two copies of the ISR were provided for each student (school copy and parent/guardian copy) and an additional copy to students that received instruction in a different school (serving) from their home school. Approximately 1.9 million total ISR reports were printed. The remaining hardcopy reports (summary level) were printed on standard 8½" by 11" white paper and provided to districts or schools. Approximately 175,000 total summary reports were generated.

Two media disks were provided for each district as well with one CD being a student data disk and one CD being a summary report PDF disk. Approximately 1,639 disks were created and shipped.

A Score Report Interpretive Guide, jointly created by ISBE, Pearson and Harcourt was also included in the report shipments in both a hardcopy and electronic format.

Report shipments were distributed via FedEx and utilized signature tracking methodology in the event a question arose concerning report deliveries. This allowed Pearson support staff to provide names of those signing for reports.

The reports were collated as follows:

DISTRIBUTION FOR Non CPS DISTRICTS
(mailed to the district)

Reports packaged for the district

- ISAT Reports CD-ROM
- ISAT Data CD-ROM
- Cover Letter
- Interpretive Guide (in black and white)

District Folder 1 - Performance Profile reports

- District Performance Profile - grade 3 through grade 8
- School Performance Profile - School 1 - grade 3 through grade 8
- School Performance Profile - School 2 - grade 3 through grade 8
- School Performance Profile - School 3 - grade 3 through grade 8 (repeat for all schools)

District Folder 2 - District Rosters reports

- District Roster by School - Reading - grade 3 through grade 8
- District Roster by School - Math - grade 3 through grade 8
- District Roster by School - Science - grade 3 through grade 8
- District Roster by Grade - Reading - grade 3 through grade 8
- District Roster by Grade - Math - grade 3 through grade 8
- District Roster by Grade - Science - grade 3 through grade 8

District Folder 3 - School Rosters reports

- School Roster - All Subjects -School 1 grade 3 through grade 8 (repeat for all schools)
- School Roster (by subject) Reading - School 1 - grade 3 through grade 8 (repeat for all schools)
- School Roster (by subject) Mathematics - School 1 - grade 3 through grade 8 (repeat for all schools)
- School Roster (by subject) Science - School 1 - grade 4 and grade 7 (repeat for all schools)

Serving School Folder 4 - Individual Student Report (1 copy) (One folder for each serving school)

- Individual Student Report - grade 3 through grade 8

Reports packaged for each Home school
(mailed to the district)

- Cover Letter
- Interpretive Guide (in black and white)

Home School Folder 1 - Performance Profile reports

- School Performance Profile - grade 3 through grade 8

Home School Folder 2 - School Rosters reports

- School Roster - All Subjects - grade 3 through grade 8
- School Roster (by subject) Reading - grade 3 through grade 8
- School Roster (by subject) Mathematics - grade 3 through grade 8
- School Roster (by subject) Science - grade 4 and grade 7

Home School Folder 3 - Individual Student Report (copy 1)

- Individual Student Report - grade 3 through grade 8 (copy 1)

Home School Folder 4 - Individual Student Report (copy 2)

- Individual Student Report - grade 3 through grade 8 (copy 2)

DISTRIBUTION FOR CPS DISTRICT RCDTS
(mailed to the district)

Reports packaged for the district

- ISAT Reports CD-ROM's
- Cover Letter
- Interpretive Guide (in black and white)

District Folder 1 - Performance Profile reports

- District Performance Profile - grade 3 through grade 8

District Folder 2 - District Rosters reports

- District Roster by School - Reading - grade 3 through grade 8
- District Roster by School - Math - grade 3 through grade 8
- District Roster by School - Science - grade 3 through grade 8
- District Roster by Grade - Reading - grade 3 through grade 8
- District Roster by Grade - Math - grade 3 through grade 8
- District Roster by Grade - Science - grade 3 through grade 8

Serving School Folder 3 - N - Individual Student Report (1 copy) (One folder for each serving school)

- Individual Student Report - grade 3 through grade 8

DISTRIBUTION FOR CPS DISTRICT
(mailed to the school)

Reports packaged for the schools

- ISAT Reports CD-ROM's
- ISAT Data CD-ROM
- Cover Letter
- Interpretive Guide (in black and white)

School Folder 1 - Performance Profile reports

- School Performance Profile - grade 3 through grade 8

School Folder 2 - School Rosters reports

- School Roster - All Subjects - grade 3 through grade 8

- School Roster (by subject) Reading - grade 3 through grade 8
- School Roster (by subject) Mathematics - grade 3 through grade 8
- School Roster (by subject) Science - grade 4 and grade 7

Home School Folder 3 - Individual Student Report (copy 1)

- Individual Student Report - grade 3 through grade 8 (copy 1)

Home School Folder 4 - Individual Student Report (copy 2)

- Individual Student Report - grade 3 through grade 8 (copy 2)

G. Materials Appendix:

Exemplar copies of all forms of assessment materials, manuals, handbooks, answer documents, header sheets, barcode labels, overprinted answer documents, answer sheets, each type of report with hypothetical data, and any other assessment materials produced during the testing cycle.

Per ISBE's direction, Pearson created a simulation (test file) district that contained ISBE approved district, school and student name information. The district name was in fact the ISBE and utilized ISBE's address. This simulation district was utilized in every phase of Pearson' production cycle. As a result, when Pearson subsequently delivered production materials to the Illinois districts, ISBE also received an exemplar sample of the materials.

This simulation district was given priority at Pearson and processed as the first district in live production. This allowed ISBE an early view of material deliveries and a final opportunity to inspect live production before all districts received materials. This also allowed for minimized district exposure in the event of an ISBE requested production modification.