

PENNSYLVANIA GUIDANCE DOCUMENT FOR ONLINE TESTING

v.1



Purpose of Document

Pennsylvania is pleased to offer LEAs the option for their students to complete Keystone and PSSA assessments online. In fact, starting in February 2014 online assessments will be available in a Web-Based Test Engine (WBTE) format that is browser-based, which should help to streamline the process.

As your LEA considers the online assessment option, this document will be of benefit since it highlights a number of factors that should be taken into account. It provides guidance as administrators are deciding whether online assessments are a viable option for their LEAs. It is designed in a question-and-answer structure to aid in presenting the information in an easy to read format.

Note that more technical details can be found within the *LEA Technology Readiness Checklist for Deploying Online Assessments* (which can be accessed on the eDIRECT website at <https://pa.drceirect.com>).

Frequently Asked Questions

What are the Advantages to Testing Online?

A Helps with the management of paper testing materials at schools and LEAs

- Eliminates the work involved with receiving, managing, storing, and returning large amounts of secure material and minimizes access to tests by unauthorized personnel.
- Eliminates the need to order additional materials.
- Eliminates issues during testing when redistributing tests (mismatched forms and wrong booklets are returned to the wrong student).
- Eliminates issues with labeling booklets incorrectly.
- Eliminates issues with booklets that get damaged during testing (transcribing, labeling).
- Eliminates issues with a student skipping a section or bubbling an answer in the wrong number on the answer booklet.
- Eliminates issues when booklets are sent back before the student had a chance to do the make-up session.

A Advantages to students:

- Increases student engagement in the assessment process.
- Enables students to interact with the tests using built-in features, including highlighters, calculators, and review tools. Students have opportunities to develop a level of comfort by practicing the utilization of these tools prior to taking any test.
- Allows students to start testing more quickly because of the opportunities to become familiar with the testing tools and that test directions are shorter than with paper tests.
- Makes assessments more accessible for diverse student populations.
- Enables a more authentic expression of modern writing than handwritten essays, and for many students, typing is less fatiguing than handwriting.
- Provides a consistent testing engine across all Pennsylvania testing programs (PSSA, Keystone Exams, and Classroom Diagnostic Tools).

Q How Do I Balance Technology Needs for Both Instruction and Online Assessments?

A As LEAs work to determine their technology purchases within challenging financial times, it is critical that decisions are made to best leverage existing resources and expand opportunities. Provided below are a few factors that may assist in this process:

- Selection of specific devices, equipment, and infrastructure should be driven by the strategic direction and instructional needs of the LEA. For example some LEAs are considering online courses, Bring Your Own Device (BYOD) programs, and utilization of mobile and tablet devices. Although efforts are taking place to offer online assessments on a wider variety of platforms, it is not recommended that technology decisions be made solely based on assessment needs. Assessments should be just one factor to consider when making technology purchases. It is important that the decisions that are made support the local needs of the LEA. For more details, please refer to the section later in this document that addresses the devices that can be used for online assessments.
- Technologies now exist to “repurpose” older equipment through virtualization, which enables such equipment to run more robust applications for instructional purposes. In addition, more cloud-based solutions are being utilized as cost-effective options. In either case, there are technological considerations on whether online assessments can also be delivered using these platforms. More detail is provided in the security considerations provided below, as well as within the LEA Technology Readiness Checklist for Deploying Online Assessments.

Q What Staffing and Scheduling Factors Need to be Considered Prior to Deciding to Offer Online Testing?

A Technology factors are only part of the considerations that need to be explored prior to deciding to move to online testing. Adequate staffing and appropriate scheduling need to be in place for the successful deployment of online testing. Typically schools do not have enough assessment-ready devices for all required students to complete assessments during the same time (unlike paper and pencil). A few key questions to consider are provided below:

- When will assessment-ready devices be available to students to use during the testing window?
- What is the impact of deploying online assessments to the master school schedule? Are online assessments deployed by department, grade, etc.?
- What staff do I need to have available to proctor the online assessments? Has the staff completed the appropriate training for proctoring?
- What steps can be put into place to reduce the probability of information being disseminated outside the testing environment? How can student devices (e.g., camera phones, mobile devices) be managed within the testing environment?

Q What Training / Tutorials Are Available for Online Testers?

- A** Within the *Handbook for Assessment Coordinators*, information is provided for resources to help prepare students for online testing. Specifically, the handbook provides details on how to access the following types of resources:
- **PA Online Tools** → Tutorials have been created for the Pennsylvania online testing programs (PSSA, Keystone Exams, CDT) and are designed to be used by students at all grade levels. The tutorials use pictures, motion, and sound to present visual and verbal descriptions of the properties and features of the PA Online Assessment System.
 - **PA Online Tools Training (OTT)** → The OTT is designed to provide an introduction to using the online assessment software so that students have experiences with the features of the software prior to taking any assessment.

Q What are the Security Considerations Relative to Online Testing?

- A** Even though instruction and assessment are linked and in many ways interdependent upon each other, differences exist between a classroom's instructional environment and an equitable, secure, standardized testing environment. On a day-to-day basis Pennsylvania's schools provide their students with multiple opportunities to learn the LEA's curriculum and the Pennsylvania state standards in a variety of ways and modes. Pennsylvania's instructional environments promote stimulating discussions, support a variety of technological tools and applications, and encourage flexible access to the skills and content required in the state standards.

On testing day, however, the environment must be standardized according to the directions prescribed in the testing guides so that all students have equitable opportunities to demonstrate their knowledge and skills on the Pennsylvania tests. Additionally, the testing environment must assure secure online testing applications.

Identified below are a few testing security considerations (both technology and administration) that should be taken into account when deciding how best online testing would fit into your LEA's overall strategic direction. Note that the *LEA Technology Readiness Checklist for Deploying Online Assessments* can provide more technical detail.

Preparation of Computer Labs/Classrooms for Online Testing

Whether testing in computer labs and/or classrooms, the devices and rooms should be "test-ready" before the first day of testing. For instance:

- Devices must be free of viruses, key logging, spyware, and external hardware or jump drives.
- Access to the computer labs/equipment should be limited before and after testing.
- Adequate space should be provided between computers/student desks.

Onsite Proctoring and Monitoring Techniques

Whether testing in computer labs or in classrooms, active monitoring should be part of the testing process. Details on specific techniques for proctoring/monitoring can be found within the *Handbook for Assessment Coordinators* for the appropriate test.

Note that for online testing, each student will receive a Student Login Ticket (Test Ticket). This ticket provides the secure login credentials (i.e., username and password) required for a student to use the testing software. The Test Tickets must be kept in a predetermined, locked, secure storage area at both the LEA and school levels. Secure materials must never be left unattended or in open areas.

For online testing it is critical to have proctoring processes in place to monitor students so that no student has access to information outside the testing environment (e.g., such as leaving the testing environment to access the Internet).

What Devices Can be Used for Online Testing?

A The following table lists the minimum hardware and software requirements for testing on three system platforms: Windows, Mac (OS X), and Linux. Please note that tablet devices are not currently supported, but could be in a future enhancement.

	Windows	Mac	Linux§
Versions	<ul style="list-style-type: none"> Windows XP w/ Service Pack 1 or greater Windows 7 Windows Server 2003/2008 Windows Vista§ 	<ul style="list-style-type: none"> OS X 10.5*** OS X 10.6*** OS X 10.7*** OS X 10.8*** 	<ul style="list-style-type: none"> UBUNTU 12.04 with Gnome 3.4 and the Utility shell
Processor	700 MHz or faster	400 MHz or faster**	700 MHz or faster
Memory	256 MB RAM	256 MB RAM	256 MB RAM
Disk Space	100 MB 200 MB for TTS	100 MB 200 MB for TTS	100 MB
Monitor Size/Resolution	13 Inches or greater with a minimum resolution of 1024 x 768	13 inches or greater with a minimum resolution of 1024 x 768	13 inches or greater with a minimum resolution of 1024 x 768
Other	<ul style="list-style-type: none"> Mouse Keyboard Updated graphics driver* Headphones for TTS 	<ul style="list-style-type: none"> Mouse Keyboard Updated graphics driver* Headphones for TTS	<ul style="list-style-type: none"> Mouse Keyboard Updated graphics driver*

§ Text-To-Speech (TTS) is not supported for Windows Vista, Linux, or virtual machines.

* Testing computers with ATI-integrated onboard graphics must have ATI Catalyst drivers, version 9.3 or higher, installed.

** DRC does not recommend using PowerPC.

*** The operating system should be using the most recent Java for Mac OS X update.

Q Can My LEA Offer Online Testing Within a Virtual Environment?

A LEAs will need to determine whether the technology requirements are in place to appropriately deploy online testing within a virtual environment. Note that the *LEA Technology Readiness Checklist for Deploying Online Assessments* will be a useful resource in making this determination.

LEAs that decide to use virtual computing technology must implement appropriate security measures to ensure that students are not permitted to access other applications during the administration of an online assessment (e.g., technological solutions to “lock down” devices, ensuring appropriate numbers of staff are available).

Q Can My LEA Offer Online Testing Within a Bring Your Own Device (BYOD) Program?

A Student-owned devices or “Bring Your Own Devices” may not be used for online testing of any kind during the 2013–2014 school year since it is not possible to ensure proper security measures of these non-LEA owned devices.

Q Can My LEA Use Devices for Online Testing That Students are Able to Take Home?

A Many LEAs are now considering 1-1 device programs where a specific device is assigned to a student and that student has the ability to take the device home. If these LEA-owned devices meet the technical requirements for online assessments, then LEAs may use these devices for assessment purposes as long as security measures are in place. In other words the devices that students take home must be configured with the appropriate security measures on testing days as any device that resides on the LEA network.