Tips for Computer-Based Testing
Transitions in California

As California schools and districts transition from paper- to computer-based standardized tests, maintaining a smooth transition is key. In October 2012, ETS and Computerized Assessments & Learning (CA&L) administered a tryout of computer-based testing (CBT) in California on behalf of the CDE and the SBE as part of the current STAR testing program. A diverse sample of 285 California schools participated, taking the first step in a CBT transition for California. The following are tips from ETS and CA&L, followed by practical advice from school and district assessment staff that participated in the STAR CBT tryout.

- **Local Capacity.** Large-scale online testing requires adequate equipment and local know-how. Experience with other state-level testing programs has shown that with just a little help, teachers and test administrators can successfully address most technical problems and questions.
  ➢ “Prepare early and make sure that the Internet connections are going to be ready for the demand of multiple computers.” **Note:** In addition to checking Internet bandwidth, ensure that your wireless networks and routers have the capacity to service all testing computers transmitting data at once.
  ➢ “Have both administration and technology staff available during testing.”

- **Student-to-Computer Ratio.** A common misconception is that a high student-to-computer ratio must be achieved for large-scale CBT to be possible. CBT typically comes with a longer testing window than paper-based testing; sometimes much longer. This allows many students to cycle through a limited number of computers. As a rule of thumb, the number of computers needed is a function of the number of test takers, the number of testing days and the number of test sessions each day.
  ➢ “Have two or more computer labs per campus, with the number of computer[s] per lab equal to or greater than your largest classroom.”

- **Gradual Implementation.** A gradual transition from paper to computer is perhaps the best available tool in overcoming both perceived and real challenges in converting to CBT. If you are planning on transitioning any of your local testing programs from paper to CBT, consider transitioning one grade at a time, or simply have the old paper-based test ready as a back-up plan for the first time you try CBT. Gradual transition will ease students, teachers and IT staff into new processes. This approach will also give you an accurate estimate of the resources that are needed for eventually supporting 100 percent online testing and of what you’ll need for the eventual statewide transition to CBT.
  ➢ “Participate in a pilot, a tryout, etc. You won’t know what you are going to gain from the experience until you actually live through it.”
  ➢ “Make sure students know how to drag and drop, enlarge and close windows, [and] move open windows out of the way so they may better view the test question. There are many basic computer skills assumed that will need to be explicitly taught.”
• **Training and Communication.** Teachers, administrators and technology staff each have their own roles in the successful administration of computer-based assessments and adequate training and communication of these roles will be key. Students will also need training.

  ➢ “Do not stress or panic. My advice would be to stay updated on all correspondence from [the Smarter Balanced Assessment Consortium], CDE and STAR. Share all information with your administrators and teachers.”

  ➢ “It helps if the IT department and Education Services department have a good working relationship. Communication and cooperation were key for us.”

  ➢ “Be aware that while most students were more than comfortable with the CBT setting, the students that do not have computers at home became more apparent. The tutorial was a ‘must watch’.”

• **Involve Technology Staff Early and Often.** Early participation by IT staff ensures computers and systems can be thoroughly prepared and checked before test day. Each district network is unique, and custom setup procedures may be necessary.

  ➢ “Work early with the district IT department. The sooner they load the software, the more time the teachers and students will have to do the practice tests.”

  ➢ “Involve your tech people early!”

  ➢ “The technology readiness piece is incredible. We would not have been as successful had we not had total tech support at each of the testing sessions.”

  ➢ “Technology support personnel need to be an integral part of the process.”

• **Discuss the Advantages of Computer-Based Testing.** There are many advantages to CBT beyond the simple elimination of large-scale paper handling. Discuss these advantages with your staff. They include:

  ✓ Potential for immediate test results
  ✓ Accuracy in data and data collection
  ✓ Student motivation
  ✓ Use of new item types that better assess student knowledge and skills
  ✓ Leverage for added hardware purchases that will also support instruction
  ✓ Pre-ID flexibility, which allows test-taker information to be added and changed on the fly
  ✓ Fairer assessments through technology-enabled modifications and accommodations

  ➢ “[You] need to try it. Our students would much prefer to take [tests] online versus paper. They said it was easier to navigate, so this is the wave of their future.”

  ➢ “Give it a try!”

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