



GED TESTING SERVICE® COMPUTER-BASED TESTING USABILITY STUDY

THE GED® TESTING PROGRAM: MOVING FORWARD

Since the American Council on Education developed the GED® test in 1942, more than 17 million adults—or one of every seven Americans—have earned the GED® test credential. Although the content area subjects of the GED® test haven't changed, priorities, assumptions, and assessment criteria continually evolve to meet the needs of candidates, higher education, and the job market. Ensuring that the GED® test meets the challenges of the 21st century is an important goal at GED Testing Service.

In 2009, GED Testing Service investigated the potential delivery of the GED® test as a computer-based exam, in addition to offering the paper-based format. Working with Pearson VUE, a global leader in computer-based testing (CBT), the testing service commissioned two studies to learn more about GED® test-takers and the GED® test. The first was a usability study intended to evaluate and establish ease-of-use standards for a computer-based GED® test. The second will be a comparability study to ensure equivalency of CBT to the paper-based versions of the tests.

“That is why we will provide the support necessary for you to complete college and meet a new goal: By 2020, America will once again have the highest proportion of college graduates in the world.”

**-President Obama to a joint session of Congress,
February 2009**

THE USABILITY STUDY: WHAT WE KNOW

The goal of the usability study was to understand how test-takers would interact with the GED® test using hardware (that is, a keyboard and mouse) and software (scrolling, graphics, and exhibit windows) and to make improvements where necessary. During the three-month prototype phase of the study, GED Testing Service and Pearson VUE

“Usability in the context of creating software is an approach that puts the user, rather than the system, at the center of the process.”

-Microsoft

adapted sample questions based on those in the Official GED® Practice Test. To achieve score comparability between the two formats, questions on the paper-based test cannot simply transfer (as they are) to a computer-based test.

For the usability study, GED Testing Service identified three participant characteristics for the test candidate base: age, native language and level of computer experience. Applicants

rated their own level of computer skill from very low to very high. Usability professionals observed several different groups of participants across three rounds of testing in January and February 2010. Participants interacted with multiple question-types that required the use of 20 unique computer skills. These skills ranged from basic functionality of a mouse and keyboard to interacting with on-screen buttons, pop-up windows, and features such as scrolling and dragging.

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Between rounds, testing experts made many improvements to instructions and question layouts. To make instructions clearer, for example, the experts added, revised, and reformatted the directions. They also made adjustments to the placement of on-screen buttons and graphics to facilitate ease-of-use.

“Usability is like love. You have to care, you have to listen, and you have to be willing to change.”

**-Jeffrey Zeldman, author,
Designing with Web Standards**

Over the course of three rounds of testing, test developers made more than 500 modifications to the instruction and practice question screens. By the end of the study, the testing service was satisfied that the study had achieved its goal of a highly usable computer-based format for the GED® test.

NEXT STEPS: TAKING WHAT WE’VE LEARNED FORWARD

Preparedness was another factor related to testing success. Participants who had either registered for or had completed at least one content area test responded to the instructions and practice questions with far greater ease than those less prepared.

Notable recommendations include:

- Ensure candidates have basic keyboarding skills, which are a prerequisite for the essay question format in the GED® Language Arts, Writing Test.
- Make a functional version of the instruction screens and practice questions developed for this study available to GED® test candidates before they take the test.
- Reduce the number of question formats (i.e., multiple choice, short answer, essay).
- Arrange questions of a similar format together into a single section and open each section with a brief tutorial specific to that question type.

“People underestimate their capacity for change. There is never a right time to do a difficult thing. A leader’s job is to help people have vision of their potential.”

-John Porter, Professor of Sociology, Carlton University (Canada)

The web-based online tutorial includes many enhancements recommended in the usability study.

The next phase in reviewing CBT is a comparability study to ensure that the computer-based and paper-based tests are comparable measures of a test-taker’s knowledge. The study launched on May 11, 2010, and will run until mid-summer. Stay tuned for further updates!

“Now I can do anything.”

-Evie Eaves, age 97, upon earning her GED® test credential