

Comparison of a Computer Adaptive Test and a Traditional Test

A Computer Adaptive Test (CAT) is an assessment that is customized for every student based on how the student responds to the questions. This is in contrast to the traditional test in which all students who take a particular version of the test respond to the same test questions.

Computer Adaptive Testing is similar to traditional testing in many ways, but there are also some differences. This table highlights some of the characteristics that a CAT and a traditional test have in common and some of the characteristics that are different. Explanations are included for clarity.

Test Characteristic	Same	Different	Explanation
Content assessed	X		Each test format will assess the Standards of Learning (SOL) for a particular course.
Question types/format	X		Each test format will have multiple-choice questions and approximately 15% technology-enhanced items.
Number of test questions		X	For a particular course, the number of test items on a CAT may be different than the number of items on a traditional SOL test. However, all students taking a CAT for a particular course will be administered the same number of items. As well, all students taking a traditional form of the test will be administered the same number of items. See the Test Blueprints on the Virginia Department of Education Web site for additional information.
Test questions presented to each student		X	A CAT is customized for each student; In a traditional test, all students administered the same test form are presented with the same questions.
Presentation of content (mathematics only)	X		Mathematics test questions are generally presented in order of reporting category. Each test format will continue to do this.
Time to complete the test	X		SOL tests will be untimed in both formats; Students should be afforded as much time as needed to complete the test, but are generally expected to complete the test in one day.
Allowable test manipulatives	X		Each test format will allow students access to the same test manipulatives such as a scientific calculator or scratch paper. The examiner's manual contains a complete list for each SOL test.
Online tools within TestNav™	X		The same online tools will be available in each format within the testing software such as the choice eliminator, eraser, highlighter, or pencil. The examiner's manual contains a complete list for each SOL test.
Navigation through the test		X	In a CAT, questions must be answered in the order they are presented. Each question must be answered completely before the student can move on to the next question. A student cannot skip any questions, nor return to a previously answered question. This is in contrast to the traditional test, where students can answer questions in a section of the test in any order.
Special accommodations	X		The special accommodations provided for each test format is the same, but the manner in which some accommodations are delivered to students may be different for a CAT. The examiner's manual will provide instructions. The Plain English accommodation for grade 6 mathematics will be available in a computer adaptive format beginning in spring 2015.
Scaled scores	X		Scaled scores will remain on a scale of 0 to 600, with 400 indicating pass/proficient and 500 indicating pass/advanced for both test formats. Scaled scores for a CAT will be computed using the number of questions answered correctly, as well as the difficulty level of the questions answered correctly.