NAEP Writing
Computer-Based Assessment

An Overview for Grade 4

What to Expect for the NAEP Writing Computer-Based Assessment

What should **schools** expect?

As with other NAEP assessments, NAEP staff will administer the assessment and work with school staff to organize the writing assessment activities. NAEP staff members will bring all necessary materials, including laptop computers and earbuds, to the school on assessment day. Schools will only need to provide rooms, desks or tables, and access to electrical outlets; schools do not have to provide Internet access.

Thirty students in each school will be selected to participate. The assessment will be administered in two sequential sessions with about 15 students each. It will take approximately 120 minutes for students to complete the assessment.

What should **students** expect?

Before the assessment begins, students will be shown a tutorial that will help them become familiar with the way material is presented on the computer screen and how to use the program. This tutorial is accessible online at http://nces.ed.gov/nationsreportcard/writing/cba.asp. Students will compose their responses in a word processing program similar to programs commonly used at home and at school. They will be able to use familiar tools for editing, formatting, and text analysis; they will not have access to irrelevant or distracting tools such as clip art, font type and color, or the Internet. Students may ask questions about how to use these features at any time before and during the assessment.

It will take approximately 120 minutes for students to complete the assessment, 60 minutes of which is allotted to responding to writing prompts. Students will respond to text, video, or animated prompts on the computer and listen to audio prompts via earbuds, which will be provided. The assessment questions are designed to measure students' ability to persuade, to explain, or to convey experience.

Students will also respond to questions designed to gather information that provides context for understanding the assessment results, such as how many pages the student reads each day for school and homework, and whether there is a computer in the home that the student can use. New to the assessment are specific questions about computer use, such as writing for school assignments and using the Internet.

In today's society, writing with paper and pencil has largely been replaced by writing using a computer. Increasingly, as students move through school, they are expected to be familiar with using computers for writing and other subjects. Reflecting the changes in technology – and in anticipation of the increasing role computers play in educational activities – fourth-grade students taking the National Assessment of Educational Progress (NAEP) writing assessment will use a computer to compose and edit their responses. For the first time, this pilot study will provide an opportunity to assess fourth-graders' ability to write using a computer. It will also help to prepare students for the skills they will need as they move toward middle and high school.

➜ How is the NAEP writing computer-based assessment different from past writing assessments?

Most NAEP assessments are administered in a paper-and-pencil format; however, NAEP is moving in the direction of computer-based assessments. The NAEP writing assessment was first administered on a computer in 2011 at grades 8 and 12. In 2012, the grade 4 writing computer-based assessment pilot study will be the next step in the transition. It will be designed to take advantage of many features of current digital technology, such as word processing software. The computer-based writing tasks will be delivered in multimedia formats, such as short videos and audio.

89% of fourth-graders who took the NAEP reading assessment in 2009 reported that they had a home computer.

(National Assessment of Educational Progress, 2009.)

➜ Why is the writing assessment computer-based?

The 2011 NAEP Writing Framework, which guides the assessment, takes into account the expanding role of technology and the reality that today's students, at even the earliest grades, increasingly rely on computers to compose and complete school assignments. In 2009, for example, NAEP data showed that a vast majority of fourth-graders (91%) have computers available to them and their teachers for reading or language arts activities in school.

In anticipation of more widespread access to computers and increased keyboarding instruction in elementary schools, this study will provide an opportunity to examine the feasibility of administering additional computer-based assessments to students in grade 4.

➜ How was the new writing framework developed?

The writing framework was developed by the National Assessment Governing Board, with input from a wide range of individuals and organizations, including writing experts, school administrators, policymakers, teachers, parents, and others. To view the framework, visit http://www.nagb.org/publications/frameworks.htm.

➜ How will the responses be scored?

Trained scorers will evaluate the responses. For NAEP, scorers are taught to score each item through extensive training using many example responses. They will evaluate three broad features of writing, as follows:

- Development of Ideas
- Organization of Ideas
- Language Facility and Use of Conventions

Scorers will use a holistic scoring rubric, which is designed to guide their evaluation of the response as a whole using the three features of writing listed above. Individual elements or parts of the response will not be scored separately.

➜ Will accommodations be provided?

A key goal of NAEP is to include as many students as possible. The writing computer-based assessment is designed to comply with federal policy, which instructs that electronic information technology be accessible to all people, including those with disabilities. The writing assessment features optional settings that will reduce the need for accommodations, including the following:

- A 'Speak' function on computers that can read aloud all or selected portions of directions, tasks, and stimulus materials. (Some stimulus materials will not respond to a 'Speak' function but will have separate play buttons.)

- Electronic spell-check and a thesaurus that are incorporated into the interface with user-prompted activation options.

- Adjustable font size up to 48-point (letters about 2/3 inch tall).

- Choice of color schemes, including a high contrast option.

As with other NAEP assessments, accommodations such as alterations in the testing setting or timing will be provided. For this assessment, if needed, additional accommodations will be available, such as screen magnification greater than 48-point font and the ability to enlarge graphics. Accommodations such as signed directions can be provided by the school staff. Any change that alters the skill NAEP is designed to measure will not be allowed.

The National Assessment of Educational Progress (NAEP), first administered in 1969, is the largest continuing and nationally representative assessment of what our nation's students know and can do in core subjects such as mathematics, reading, science, and writing. NAEP is considered the gold standard of assessments because of its high technical quality. Teachers, principals, parents, policymakers, and researchers all use NAEP results to assess progress and develop ways to improve education throughout the country. The results of NAEP are released as The Nation's Report Card, and are available for the nation, states, and in some cases, urban districts. For more information, please visit http://nces.ed.gov/nationsreportcard/.

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