



**Embargoed: Hold for Release Until  
Friday, September 14, 2012, at 11:00 a.m. (EDT)**

**STATEMENT ON THE NATION'S REPORT CARD:  
*Writing 2011, Grades 8 and 12***

**ARTHUR N. APPLEBEE**

**Distinguished Professor of Education; Chair, Department of Educational Theory and Practice; Director, Center on English Learning and Achievement, University at Albany, State University of New York**

I have had the privilege of working as a consultant on NAEP assessments for more than 30 years, and most recently to serve as a co-chair of the committee that developed the framework and specifications for the assessment being released today. It is exciting to see the years of work that went into this assessment come to such positive fruition. There are several points I would like to make about the assessment results.

First, this assessment is a major milestone for large-scale writing assessment, moving NAEP decisively into the 21st century. Results from NAEP's data over the past 25 years, as well as data from many independent studies, have shown substantial increases in students' use of computers in general and the use of computers for writing in particular. Handwritten reports and messages are no longer enough, whether in higher education or the workplace. Graduates who lack basic word-processing skills are handicapped, whatever their post-high school plans. These trends make the changes in the NAEP Writing Assessment both necessary and possible.

Second, the students were ready. At grades 8 and 12, students used a keyboard effectively, producing interesting writing in response to the wide variety of prompts included in the assessment. This is clear in the sample responses being released today. Whether or not they had mastered typing, students typed out their responses, and many used tools such as spell check and backspace to modify what they had written. During the development of this assessment, many people worried that students were not ready to write at length on a computer, but they were wrong.

Third, this computer-based assessment has produced a wealth of data that will add to our understanding of how better and poorer writers approach the process of drafting and revision. For example, at grade 12, 67 percent of higher-performing students used the backspace key more

than 500 times, whereas only 10 percent of lower-performing students used the backspace key that often—suggesting, perhaps, that the higher-performing students were self-monitoring and making immediate corrections more often than their peers. Higher performers were also more likely to right-click to access spell check 1–10 times, again suggesting a higher degree of self-monitoring. Such information is new with this assessment, and we still need to explore its implications for understanding writing achievement for improving writing instruction.

Fourth, a computer-based assessment raises the question of the digital divide: Is NAEP penalizing students whose families cannot afford a computer? The short answer seems to be no. NAEP’s own studies have shown that a computer-based format for writing assessment did not give any group a special advantage or penalize any subgroup, though of course individual students might do more or less well when their responses are handwritten instead of typed. And the research based on the use of computers for writing suggests that it is particularly beneficial for low-achieving or special education students.<sup>1</sup>

As you might expect, students who reported more experience writing with computers generally did score better on the computer-based NAEP Writing Assessment than students who reported less experience writing on a computer. But the interesting thing is that this has been true in previous NAEP assessments as well—students who reported more experience writing on a computer performed better on paper-and-pencil writing assessments than did students who reported less experience writing on a computer. What may be happening is that higher-achieving students tend to use computers more often and do better on writing assessments, whether or not they are handwritten or computer-based.

Finally, the new assessment sends an important message to teachers and schools. As computers have become ubiquitous in the out-of-school lives of middle and high school students, they have remained somewhat limited in school uses.<sup>2</sup> This assessment of how well students write when using commonly available tools—a full-featured word processor—makes clear that such tasks need to be integrated into curriculum and instruction. In contrast, paper-and-pencil assessments send the opposite message, leading teachers in some schools to require their students to write by hand just to be sure they are ready for the tests.<sup>3</sup> As writing on a computer becomes widespread in schools, it opens up a host of new possibilities for enriching instruction, ranging from access to the wealth of materials on the Internet to the exploration of emerging genres and digital media.

NAEP has previously been at the leading edge of assessment development, providing models that states have adapted for their own high-stakes testing. With the move to a computer-based writing assessment, NAEP is again positioning itself at that leading edge. This includes both the redefinition of writing achievement as writing with word-processing tools, and the use of the options that a computer-based assessment provides for accommodations, such as text-to-speech

---

<sup>1</sup> Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools*. Washington, D.C.; Alliance for Excellent Education.

<sup>2</sup> Applebee, A. N., & Langer, J. A. (2011). A snapshot of writing instruction in middle and high school. *English Journal*, 100(6), 14-27.

<sup>3</sup> Russell, M., & Abrams, L. (2004). Instructional use of computers for writing: The effect of state testing programs. *Teachers College Record*, 106(6), 1332-1357.

for students who need it, and the enrichment of writing prompts with audio and visual effects that are at best difficult if not impossible to provide with a pencil-and-paper exam.