

**Research Considerations: Paper and Pencil Vs Online
Article 8**

Wresch, W. (1984) The Computer in Composition Instruction: A Writer's Tool. Urbana, IL, National Council of Teachers of English.

This study builds on two previous studies to examine the effect administering extended composition test items on paper and on computer has on student performance. This study employs writing items from the 1999 Massachusetts Comprehensive Assessment System (MCAS) to examine the mode of administration effect in grades eight and ten. Like the previous studies, this article reports that open-ended Language Arts items that require students to generate responses using paper and pencil severely underestimate the achievement of students accustomed to writing using a computer. Combining the effects found in this study with those found in a prior study, this article estimates that students accustomed to writing using a computer under-perform on the MCAS Language Arts test by four to eight points on an eighty point scale. This article concludes by recommending that state testing programs that employ open-ended items in Language Arts provide students with the option of composing responses on paper or on computer.