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James H Fife* (jfife@ets.org), 660 Rosedale Road, Princeton, NJ 08541. *Capturing Equations for Automated Scoring—Typed or Handwritten.*

In this talk I will describe a project with two research questions: (1) Do high school students who enter responses on a computer, using an equation editor, perform as well as if they had handwritten the responses, and (2) Is handwriting recognition software sufficiently reliable to capture handwritten responses on an iPad for accurate automated scoring? Two parallel forms of an assessment were created; students were asked to copy a series of successively more complicated equations, ranging from simple arithmetic equations to the quadratic formula. Approximately 475 students were recruited from four high schools in different parts of the US; each student took each assessment, one by entering responses on a computer, using an equation editor, and one by handwriting responses on an iPad. The computer responses were captured as MathML, while the handwritten responses were converted by handwriting recognition software into MathML. The MathML from both forms of responses was then evaluated for correctness. In this talk we will discuss our findings. (Received September 07, 2017)