West Virginia Story: Achievement Gains from a Statewide Comprehensive Instructional Technology Program

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Abstract
This report describes West Virginia's Basic Skills/Computer Education (BS/CE) program and connects its features to gains in student test scores that are practically and statistically significant. The program consists of three components: (1) software that focuses on the state's basic skills goals in reading, language arts, and mathematics; (2) enough computers in the schools so that all students will be able to have easy and regular access to the basic skills software; and (3) professional development for teachers in the use of the software and the use of computers in general. Data were collected from all fifth graders (n=950) in 18 elementary schools selected to represent the range of variables that might influence technology use and student achievement. Survey data were also collected from 290 teachers. Results were analyzed using a model that includes access to software and computers, attitudes toward technology, and teacher training and involvement. The relationship of BS/CE to student achievement, as measured by the Stanford-9 achievement test, is examined. Findings suggest that the BS/CE program had a powerfully positive effect, especially in those schools that used it most intensively. Ten figures and tables illustrate findings. (AEF)