Testing of the Future: Should Standardized Tests Be Taken on Paper or Online?

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As many schools are choosing to integrate technology into the classroom, such as iPads and laptops, administrators are pushing that state-mandated standardized tests are also taken on the computer. This poses the questions: “Are the standardized test scores of students affected by the method on which they take the exam (paper or computer)?” and “Are the test scores of those tests taken on the computer affected by the number of years that a student has used a computer in school?” In conducting this study, 596 participants in grades 4-9 were given a standardized test on paper and online. These tests consisted of five english and five math questions from released state standardized tests. To fully counterbalance the experiments, students were randomly selected to four different testing groups, which determined the order in which the student would take their online and paper test, and the test form. The participants paper and online scores were then analyzed and compared against each other. At the conclusion of the study, it was determined that the method a test is administered affects the test taker’s score. Combined across all grades, there was a statistically significant difference for standardized tests taken on paper and on laptop. When a student took a standardized test on paper, they received a 4% higher score than when they took the exam online. When the scores of the students were analyzed by grade level, it was determined that the standardized test scores of students in grades 8 and 9 had a larger mean difference between their paper and online test score. From these results, it is theorized that student performance on standardized tests depends on the method in which the students have taken their standardized tests in the past.

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