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*Visual Abnormalities and the Comparison of Paper and Computer Based Testing Using Color as the Variable*

The purpose of this project was to determine whether visual abnormalities are able to be detected in paper based testing and computer based testing formats using color as the variable. This experiment involved thirty eighth grade students taking two reading comprehension tests, one without using a turquoise overlay, and one with using a turquoise overlay. This was done by having 15 students read a section of a story out load on a computer and having 15 students read a section of a story out load from paper. Then each student completed a short Irlen quiz that relates to Irlen Syndrome. The data in this experiment confirmed the hypothesis that a higher percentage of students would perform more efficiently on the reading comprehension tests using the colored overlay. However, students who thought of themselves of never needing the overlay were the students that had higher test scores when using the overlay. Students who performed more effectively on the test not using an overlay became disturbed while reading with the overlay which affected the test score using the overlay, increasing the test score of the test without the overlay being used. Nevertheless, there were a percentage of students that performed equally as well on both tests. This experiment confirmed that when using an overlay, a majority of students will perform more efficiently on reading comprehension tests; however, there will still be the students that perform more efficiently on reading comprehension tests not using an overlay.