

ABSTRACT

DISSERTATION: Indiana High School Students' Outcomes and Ubiquitous Technology

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The purpose of this study was to identify, analyze, and compare differences in student outcomes between public high schools in Indiana that had implemented 1:1 technology learning environments with those that had not. Specifically, student outcomes in academic performance, attendance, and graduation rates were statistically compared.

This study was conducted using archival data from several different sources. The 2016 Indiana Technology Planning Study administered by the Indiana Department of Education was used to identify high schools in Indiana that had implemented 1:1 technology initiatives. Data collected from the Indiana Department of Education identified 375 public high schools that could be compared based on their complete responses to the technology survey, participation in standardized testing, and comprehensive reporting of student attendance and graduation rates.

Data collected for the sample schools were used to determine if differences in student outcomes existed between schools that had implemented 1:1 technology and schools that had not. This data came from the 2016 ISTEP+ English/Language Arts End-of-Course Assessment, the 2016 ISTEP+ 10 English/Language Assessment, 2016 attendance rate data, and 2016 graduation rate data.

The student outcomes from the identified schools were compared overall. Also, to control for socio-economic status, the schools were sorted based on how they compared to the state free/reduced percentage and then compared statistically. This study also separated charter schools from the overall sample and then compared student outcomes between charter schools that had implemented 1:1 technology and those that had not.

Statistical analysis was used to draw conclusions from the differences found in student outcomes between schools that had implemented 1:1 technology and those that had not. The differences in student outcomes were compared using traditional descriptive statistics and inferential statistics in the form of sixteen different independent samples t-tests.

Data collected for this study indicated that differences in student outcomes do exist between schools that had implemented 1:1 technology and those that had not. Statistical analysis of these differences using independent samples t-tests suggested that 1:1 technology may not have much of an impact on student academic achievement but may have an impact on student attendance and graduate rates.