ABSTRACT OF THE DISSERTATION

A STUDY COMPARING STUDENT ACHIEVEMENT BETWEEN A PRIVATE PROVIDER OF ONLINE LEARNING AND TRADITIONAL CLASSROOMS

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Virtual education is emerging as an integral component of education. This study compares academic achievement and student self-perception of success between students of traditional and virtual Algebra I courses and correlation between student achievement and grades. The problem addressed is that the educational agencies need evaluative and comparative data to guide decisions regarding virtual education. Three research questions related to academic achievement, student self-perception of success, and whether there was a correlation between student grades and test scores were addressed by the researcher. The researcher hypothesized that there would be statistically significant differences between groups in achievement and student self-perception of success and that there would be a statistically significant correlation between grades and student achievement. In the literature review the researcher describes the development of virtual education, the technologies which facilitate virtual education, theoretical and philosophical foundations of virtual education, and arguments in support of and against virtual education. Methodologically, a quasi-experimental quantitative design was used.
to address the research questions. Two comparable groups of students were selected. One group received Algebra I instruction via traditional classes and the other participated in virtual classrooms. Data was gathered using a student survey, academic records, and standardized test scores. The results of statistical calculations and analysis including a $t$-test, Pearson $r$, and a $\chi^2$ test provided evidence to reject the null hypotheses and accept the research hypotheses. Recommendations include conducting additional quantitative and qualitative studies with larger samples to expand the understanding of how to increase effectiveness of virtual education.