

ABSTRACT

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The Effects of Teacher Characteristics, Instructional Support, and the Availability of Technology on the Degree of Implementation of Technology in Louisiana High School Classrooms
(Major Professor: Bob N. Cage, Ph.D.)

The purpose of this study was to quantify the efforts of Louisiana high school teachers' technology integration and determine if variables gleaned from the research literature were truly related to these efforts in Louisiana classrooms (8-12). Data were examined using descriptive statistics, factor analysis, standard multiple regression, Pearson correlations, and Chi-Square Tests of Independence. An additional qualitative component was analyzed using computerized tabulation and systematic highlighting.

Data for this study were collected from Louisiana high school teachers ($n=769$) by both an online and conventional form of a researcher-created survey instrument entitled *The Technology and Professional Development Survey of Louisiana High School Teachers*. This 34-item survey instrument, utilizing rubrics, Likert scale items, multiple choice items, and open-end questions, reported a Cronbach's alpha coefficient of .8861. Respondents represented 50 Louisiana school districts and 97 different high schools.

This study found that the dependent variable, implementation of technology in Louisiana high school classrooms (Degree of ITC), was related to Teacher Disposition Toward Technology, Instructional Support for ITC, Availability of Technology for ITC, Teacher Collaboration Regarding ITC, Teacher Level of Education, and Teacher Participation in Louisiana Technology Initiatives. Although the findings were not statistically significant, Access and Use of Computers at Home for ITC also contributed to the predicted Degree of ITC calculated by the regression equation. Additionally, Degree of ITC was compared to School Performance Scores (SPS) as a test of the impact of teacher efforts to implement technology on student achievement in Louisiana high schools.

Findings indicate that Teacher Disposition Toward ITC and Teacher Collaboration Regarding ITC are most influential in contributing to the level of technology implementation. Instructional support was most often received from peers rather than school administrators. Teachers reported using computers at home for school related purposes although tasks performed were more managerial than instructive. Student achievement was therefore unaffected by Degree of ITC. Teacher level of education and participation in the Louisiana INTECH professional development program were significantly associated with high levels of ITC. Suggestions for teachers and principals pursuing technology integration are included.