

UNDERSTANDING AND EVALUATING EFFECTIVE TECHNOLOGY INTEGRATION IN THE CLASSROOM

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The current study analyzed four major research questions: (1) Are the attitudes and beliefs of pre-service teachers correlated with constructivist/traditionalist approaches to technology integration? (2) Does prior technology usage predict constructivist/traditionalist approaches to technology integration, as well as pre-service teachers' general attitudes/beliefs about technology? (3) Does taking a technology integration course predict pre-service teachers' confidence in and approaches to technology-based pedagogy? (4) What forms of evaluation materials (typical checklist, abstract checklist, or concrete checklist) facilitate analysis and application of digital materials for effective classroom instruction? Pre-service teachers from the University of Utah ($N = 30$) indicated their attitudes/beliefs towards technology, rated hypothetical teaching scenarios for effective technology use, and used one of the three checklist forms to evaluate online lesson plans. Results demonstrated a positive, significant correlation between pre-service teachers' general values about technology and traditionalist (teacher-centered) practices but failed to show any significant correlations between prior technology experience and student-centered technology pedagogical practices. Results showed that taking a technology-integration course increased confidence in and intentions to use technology in future classrooms. Finally, participants who used the concrete checklists that contained both principles and cognitive examples of technology integration were more accurate in evaluating the quality of technology integration found in online lessons.

Overall, this study suggests that expectations of technology use in classrooms has resulted in all teachers being more likely to use technology for traditional instructional methods, but more work and training is needed to help pre-service teachers move beyond teacher-centered instruction with technology. Scaffolding technology-based lesson plans with evaluative checklists that include realistic examples of student cognition for principles of technology integration can help teachers analyze technology-based lessons more effectively. However, additional research is necessary to understand how different training and support can help pre-service teachers apply and transfer their understanding of technology integration in a variety of contexts.

