A Pathway to Practice: Applying Findings from a Study of Preservice Teachers' Digital Literacy

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Abstract

According to the National Council of Teachers of English (NCTE, 2008) "proficiency with the tools of technology" and the ability to "create, critique analyze and evaluate multi-media texts" are among the key characteristics of 21st century literacies (p.1). Using a case study design, researchers explored the digital literacy demonstrated by fifty preservice teachers engaged in problem-based learning. The study examined the interaction and collaboration between and among fifty preservice teachers in methods classes as they created wikis as tools for identifying solutions to content-bound, open-ended problems in social studies and science. Data included interviews conducted with participants at the beginning and conclusion of the wiki project and activities documented in wiki page histories such as adding, editing, questioning and deleting information. Findings indicated that preservice teachers were facile with the skills needed for using wikis as meaning making tools and that they recognized the potential of wikis as tools for meaning making; however, they were unable to use wikis as tools for deep engagement in the process of knowledge construction. Students engaged in fact finding, but they did not engage in analyzing, evaluating or critiquing information. The students' wikis presented no evidence of critical thinking or evaluation of sources. Based on the findings of this case study investigation, this paper presentation identifies and describes essential components for designing teacher education and professional development programs, courses and assignments that will enable learners to use ICTs as tools for critical thinking. Specifically, it discusses the development of instructional goals, objectives and activities that truly necessitate the use of ICTs as meaning making tools, the types of facilitation, scaffolding and modeling that foster critical thinking when using ICTs and ways to provide multiple opportunities to use ICTs in academic settings.