Digital Storytelling: A gateway to educational technology in a teacher education program

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Abstract:

To improve pre-service teachers’ academic use of technology and eventually increase their possibilities of becoming effective change agents in terms of educational technology, the potential of digital storytelling as a gateway to educational technology in a teacher education program is examined. The preliminary findings indicate that digital storytelling has an impact on pre-service teachers’ academic use of and perspectives of technology.

1 Personal Use of Technology vs. Educational Use of Technology

The demand for technology infused classrooms is constantly increasing, and higher education institutions are offering more educational technology courses to pre-service teachers to fulfill this demand. Even with this effort, however, it is often witnessed that pre-service teachers are reluctant in using more than the minimum level of technologies (e.g., Word processor and Presentation software) for their learning and practice. Considering the fact that today’s college students are “digital natives”, their low level of technology use in education is surprising. It is, however, found that these college students lack the knowledge necessary to use the technology in their academic lives [3]. Teachers’ technology confidence has an impact on their credibility in the classroom [5]. If the current pre-service teachers are reluctant in using technology in their learning, it is highly possible that they will not promote technology infused learning environments when they become in-service teachers. Researchers assert that efficacy may be most malleable early in learning and become more set with experience if the context and task remain relatively stable. This can be applied in the field of educational technology: if pre-service teachers are exposed to educational technology in their learning as early as possible, it will have a critical impact on their long-term development of technology efficacy.

2 Digital Storytelling as a Gateway to Educational Technology

Recently, digital storytelling has received much attention from educators for its many potential educational benefits. By encouraging students to create their own stories from their own experiences and express them through art, oral history, creative writing, speaking, photographs, music, news clippings, digital video, the Web, graphic design, sound engineering, or animation [2], digital storytelling facilitates student engagement, active learning, student-centered learning, project-based learning, inquiry-based learning, and media literacy [1]. It also supports constructive learning since the process of composing a story creates a unique experience for an individual [4].
While educational use of digital storytelling has been popular, most projects on digital storytelling have been on the content area learning, leaving technology as only a tool for assisting with content learning. Digital storytelling as a gateway to educational technology, however, allows personal technology (e.g., photos and videos from digital cameras and music from MP3 devices) transfer to educational venues in easy, fun, and seamless ways. If and when digital storytelling plays a gateway role, it can facilitate pre-service teachers becoming change agents of educational technology. That is, these pre-service teachers will be more likely to adopt technologies, receive technical training, and will be more likely to be successful in integrating technology into their classrooms [6].

3 Research Methodology

This study examined the potential of digital storytelling as a gateway to educational technology in a teacher education program. The guiding research question was whether the experience of digital storytelling has a significant impact on pre-service teachers becoming change agents in terms of educational technology. Pre-service teachers’ self-efficacy in educational technology, openness to change in educational technology, degree of willingness to participate in technology training, and willingness to work beyond the contractual work hours for technology infusion in classrooms were studied. A total of 82 pre-service students from a higher education institution in the United States participated in the study.

4 Preliminary Findings

A series of two-tailed t-tests for paired samples were applied for comparison of the mean data from the same participants obtained before and after their exposure to digital storytelling. The digital storytelling effect was significant in 17 of the 21 computer technology integration questions and six of the seven openness to change questions. Digital storytelling, however, did not show a significant effect in the three questions concerning professional development for technology infusion.

References:


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