

Walk the Talk: Developing TPACK in Teachers through a Graduate Course on Integrating Technology, Pedagogy, and Content

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Abstract

The integration of emerging technologies and their application to innovative pedagogy often begins with an individual teacher who has a passion for teaching and learning, and is willing to take risks to make it happen. In an effort to expand this approach to teacher development, a graduate level course titled, "Integrating Technology, Pedagogy and Content" was created in our Master of Education program. The content of the course included theoretical frameworks of technology integration and learning theories, application of technology-enhanced solutions to authentic problems in the classroom, and a final collaborative proposal co-authored by all students in the class and the instructor. The approach to the course used a TPACK framework, including technology as both content and pedagogy. This presentation will include reflection on the process and outcomes of this approach to a hybrid course encouraging theoretical and practical application of TPACK in practice.

Summary

The course to be discussed provides a collaborative examination of the integration of new and emerging digital technologies in the context of education. The foundation of the course is a comparison of models of integration based on learning theory. The course includes both on-line and face-to-face meetings, in an Active Learning Classroom and off-site at a community-industrial partnership known as Digital Hub to provide an authentic and engaging context. A variety of technologies are introduced and utilized for learning within the course and class members explore and present specific digital technologies to address relevant educational problems or goals. Readings and resources come from a variety of media, including theoretical chapters; empirical journal articles; expert and lay responses via social media like Twitter, Blogs, YouTube, Websites, etc.; and, on-line resources resulting from individual and collaborative inquiry. Assignments consist of individual learning adventures and a final collaborative proposal.

The presentation will include a summary of the content and pedagogy, the intended learning outcomes, and an analysis of the instructor and student response in terms of Technological, Pedagogical, Content knowledge. The final assignment in the course was a collaborative proposal to determine the most effective approach to professional development for teachers and effective technology integration. Students in the course were practicing teachers who indicated that the strong theory-practice connection in an authentic, collaborative environment was an extremely effective method of approaching technology integration. The course demanded that students explore technology in a problem-solving framework and collaborate to co-construct a larger body of knowledge.