Preparing Preservice Teachers to Integrate Technology in Learning
Within a Biology Classroom

Melody Hopkins and Stephanie Hulon
University of South Alabama
United States
melodyhopkins10@gmail.com
sih702@jagmail.southalabama.edu

One of the major changes in the 21st Century classroom when compared to classrooms of the past is that the tools used in teaching are different. High tech tools such as digital cameras, iPads, netbooks, and SMARTboards fill the classroom. These tools allow for students to access information in a completely new way and engage in inquiry like never before. New teachers entering the field need to understand the continuum of technology tools and how these tools can be effectively integrated into the curriculum. They need to be prepared to foster digital citizenship in their students by modeling appropriate technology use themselves. They need to be trained by experts in the field on how to provide digital learning experiences for their students, which include learning experiences that are carefully analyzed and aligned to instructional strategies, methods, and learning outcomes. Not only does this task require the preservice teachers to be active participants in the learning process, but also it provides them with ample opportunities to display proficiency in the real world of teaching.

In this best practice session, we plan to share lessons learned during a project where an educational technology preservice teacher was paired with a local teacher in his or her field in order to become proficient at creating digital-age learning experiences. The preservice teachers were presented with the task of locating, evaluating, and creating technologically advanced learning activities for the local teacher based on current instructional goals. The assignment provided the preservice teachers with authentic learning activities while promoting digital citizenship for the high school students. In order to complete the task, three preservice teachers located and evaluated a virtual field trip relating to the biology course objectives and designed and developed a student guide for the virtual field trip. The local high school teacher implemented the virtual field trip with a biology course. The high school students participated in the activity and provided feedback through an online survey tool. The preservice teachers participated in a focus group to share their experiences through the process. The purpose of this teaching strategy is to provide preservice teachers with real-world learning experiences relating to the creation of digital-age learning experiences. The outcome of the task is that it will increase motivation, achievement, and application.