Developing Online, Interactive Learning Objects for EDEL 316

CTL Summer Student Award Final Report

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The main objective of this project was to develop and then construct within the eClass environment online learning objects to correspond to textbook readings for Elementary Education 316 (EDEL 316). The instructional team who had recently adopted a new text advised that these learning objects, in the form of quizzes, would help students deepen their understanding while reading by highlighting big ideas and would provide accountability to finish readings. EDEL 316 is delivered as a flipped classroom, where understanding mathematical and pedagogical content from readings before class is essential for learning through classroom participation in small group activities.

Over the summer, I created a database of quiz questions for twenty textbook chapters. The quiz creation required several phases in the project. First, I learned about features in eClass that supported various types of questions as well as embedding videos, applets, and other electronic resources. This included learning how to enter questions to create a database and gave me an idea of the possibilities for writing quiz questions. Second, I analyzed each chapter in order to identify key ideas and critical issues for which students required mastery. Third, I created multiple choice, true/false, and fill-in-the-blank questions which could be scored by the computer. I put substantial effort into finding web-based resources (including seeking copyright permissions for videos) where students could apply what they learned by reading their textbook, rather than using fact-recall questions. Additionally, I added in thorough feedback for students so they could learn from their interaction with the quizzes. Fourth, I input questions into a database, requiring modification for an online environment.

As a student who had already taken EDEL 316, I can envision the benefit of online quizzes corresponding to assigned readings. The quizzes will be an effective tool for providing motivation to complete readings and satisfaction for close reading of the content. As well, feedback from the quizzes will be valuable for instructors to improve their teaching to: 1) respond to misconceptions identified through quiz results; and 2) model technology integration to their students who will need to use technology in their own teaching careers. The quizzes have been successfully integrated into all EDEL 316 sections, impacting the learning of more than 400 undergraduate students each year.