Students’ Choice of Learning Methods: Seeking the Best Mix of Face-to-Face and e-interactions

Klaus Schmidt
Illinois State University

Abstract
Research shows that the Internet has revolutionized the delivery of distance education, and provided opportunities to change the way we teach. Students with access to both traditional lectures and an online learning environment fair better academically than students exposed exclusively to either traditional classroom or Internet instruction respectively. However, the ‘perfect’ mix of face-to-face and e-interaction, if there is one, has yet to be determined. A classroom action research project that extended over three semesters was designed to address and ascertain the ‘best mix model’. After two semesters of preliminary experiments, students in the third semester will have a choice to study course content exclusively on-line, off-line or a mix of on-line and off-line instructional methods. After students will have made their choice, the ‘choice’ as dependent variable will be analyzed against the respective answers in responses on the pre-assessment.

Learning via the Internet is one of the most discussed delivery methods for distance education today. Universities and other institutions provide not only entire courses but also entire degree programs online. Research shows that the Internet has revolutionized the delivery of distance education, and provided opportunities to change the way we teach on campus. Goldberg (1997): Wheeler and Jarboe (2001) found that a combination of on-line and traditional classroom instruction has become a popular way to use Internet teaching and learning tools. They showed that students with access to both traditional lectures and an online learning environment fair better academically than students exposed exclusively to either traditional classroom or Internet instruction respectively.

However, the ‘perfect’ mix of face-to-face and e-interaction, if there is one, has yet to be determined.

A classroom action research project that extended over three semesters was designed to address and ascertain the ‘best mix’ of on-line instruction and traditional, face-to-face classroom instruction. Each semester of 16 weeks was divided into three time periods: Period I, II, and III (Figure 1). The goals of the first two semesters have been accomplished. Students’ perceptions of classroom environment and learning outcomes have been assessed. The third and last semester will take place in Fall 2002. In the third semester, students will have a choice to study course content exclusively on-line, off-line or a mix of on-line and off-line instructional methods.

The classroom action research project addressed the four major components of web-enhancing a course: Administrative, Assessment, Content Delivery, and the Community Component (Schmidt, 2002). Students enrolled in a sophomore computer technology course were subjects used for the study. The first time period was conducted in a face-to-face method, using the Internet only for course administration. This time period also encourages students to become familiar with the tools of other components of web-enhancement, to allow for a smooth transition into the second time period, where students were to go fully on-line.

During the second time period of each semester, students were randomly divided into cohort A and cohort B. While cohort A studied the subject matter exclusively on-line (for 3 weeks), cohort B was deprived of any on-line interaction, even of the Administrative on-line Component, and studied the content off-line. After the first three weeks, the roles of the cohorts were reversed, with a new set of content material. All four components
of web-enhancement were fully incorporated into the three-week on-line section. The administrative component continued for the on-line cohort as introduced during the first time block. The Content Delivery Component was implemented by posting a set of audio-enhanced PowerPoint presentations to the course website. The Community Component was addressed by using both synchronous and asynchronous tools such as chat rooms and discussion postings respectively. The Assessment Component included assignments and on-line quizzes that had to be completed at the end of each three-week time period. Students that were off-line during this time period were instructed in the traditional classroom setting, with no access to the course website.

At the end of each three-week section, students’ learning outcomes and perceptions of the classroom/on-line activities were assessed. Based on preliminary analysis, no differences in the learning outcomes were detected. However, a few statistically significant differences occurred in the perceptions of classroom environment. These differences and other student feedback helped the researcher to identify the degree of approval and usage of on-line tools. For the third time period during semesters I and II, all students returned to the traditional classroom. The degree of web-enhancement for this time period was determined by the instructor, using student input from the Classroom and Learning Outcomes Assessments.

However, the layout for the third time period of semester three (Fall 2002) will be different: Students will be able to choose one of the following three options: (a) study exclusively on-line, (b) return to the traditional classroom, or (c) continue with a mix of on-line and face-to-face interaction (Figure 2). The degree of web-enhancement for the third option will accommodate student feedback collected throughout the Fall 2002 and the previous two semesters.

After students will have made their choice, the ‘choice’ as dependent variable will be analyzed against the respective answers in responses on the pre-assessment. The Pre-assessment includes items to assess Personal Characteristics, Ease of Use of Personal Computers, and Level of Familiarity with Computers, serving as independent variables.

Additional data will be collected to further identify reasons for student’s rationale in choosing the way they did. Students will be required to write a two-page, reflective paper with the topic: Why did I choose what I chose? A face-to-face interview with open-ended questions will be conducted to collect additional qualitative data to continuously explore the best mix of on-line and traditional classroom interaction.

References:

Figure 2: Semester III: Fall 2002 (Replicated, Modified, and Finalized)