

## **Assessing Online Learning and Effective Teaching Practices**

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### **Introduction and Background**

The Best Online Instructional Practices study (BOIP) conducted by the Institute of Research and Assessment in Higher Education (IRAHE) at UMUC focused on identifying processes of effective teaching and learning in the online environment (Keeton, et al., 2001; Lewis & Abdul-Hamid, 2004). In the first phase, faculty were asked to indicate their frequency of use, ease of use, and proficiency in the use of 41 teaching strategies, describe and suggest practices that could be recommended to colleagues, and identify the challenges of online teaching. Student course evaluation data were added, and in parallel with the faculty input, were analyzed to measure the effectiveness of the practices. In the second phase selected faculty samples were explored how they implemented the teaching practices. This paper reports on a pilot of the last phase of the study, which focused on the assessment of student learning outcomes and the implementation of effective teaching practices as identified in the BOIP study.

### **Research Objectives**

The objective of the pilot study was simultaneously to measure student learning outcomes and the effectiveness of online teaching practices through naturalistic inquiry and case studies of online courses. A secondary goal of the study was to measure to what extent were exemplary faculty mindful of student learning outcomes in their online courses.

### **Pilot Design**

Current UMUC faculty members, who were designated as exemplary in a previous phase of the BOIP study and who were scheduled to teach a fall 2004 online course, were invited to join the pilot. From the 30 faculty members who met the criteria, 15 instructors agreed to participate. Ten of the 15 participants completed the study bringing the final number for the study to 10. Participants consisted of six undergraduate instructors representing courses in business management, accounting (2 instructors), behavioral and social sciences, marketing, communication, and four graduate instructors with courses in health care management, computer science management, e-commerce, and education. Participants were rostered into an online course to facilitate the submission of their research materials and to receive the support and guidance of study researchers.

As participants, instructors worked with the researchers to design and conduct self-evaluations of their online courses. As they progressed through the semester, faculty created assessment plans, administered pre- and post-tests, and kept reflective journals of their experiences and observations. Faculty also produced a final case report of their experiences and student outcomes. To triangulate the study data, researchers observed the ongoing courses and revisited the archived courses at the end of the semester.

Finally, student course evaluations were also analyzed in order to assess how students perceived the course and instructor.

Five courses were selected for an in-depth assessment of the course practices, structure, and learning processes. The observations of the online classes were conducted using Roblyer and Wiencke's (2003) rubric for measuring interactive qualities of online courses and an adapted rubric measuring course outcomes, content, and assessment measures (Maryland Quality Matters, 2004 & Michigan Community Colleges, 2004). The five courses that were evaluated included graduate courses in Electronic Commerce and Health Care Management, and undergraduate courses in Accounting, Communication, and the Behavioral and Social Sciences. The reviewer explored all aspects of the course including the conferences, announcements, syllabi, and the grade books. Data that were not captured included student to instructor and student to student e-mails and transcripts of any course chat sessions

## Discussion

### Assessment Plans

The assessment plans of the participants were developed based on Suskie's (2004) rubric of classroom assessment. By completing the plan prior to the start of the course faculty were able to reflect on their teaching and the student assessment process. In preparing the plans participants identified the core learning objectives of the course, measured specific course level goals, selected appropriate assessment strategies and tools and established an assessment timeline.

### Reflective Journals

Analysis of the faculty journals showed that faculty had sustained reflections on their teaching strategies and its impact on student learning. During the first few months of the semester, faculty journals focused on two major areas: faculty preparation, class organization, and faculty formal and informal assessment of their students. As the semester progressed, the journals also revealed how faculty approached and struggled to create courses that had rich student discussion, interaction, and critical thinking activities. One faculty explained that since she was aware that many of her students had several years of work experience, she tried to bring those experiences into the course. "As the instructor, I built on the textbook examples and reinforced concepts by making them as concrete as possible. Students responded well, especially when examples given in the textbook were supplemented with examples from their own businesses to illustrate salient concepts."

Faculty were also very reflective of activities or assignments that they could use later in the course or with subsequent classes. The communication instructor reflected, "One area that I notice that I need to work on improving is having more case studies. I think cases would help students to engage more in the area of legal and ethical issues surrounding this discipline." Likewise, one of the undergraduate accounting instructors wrote about why she will incorporate group projects and team building assignments in subsequent classes: "My test group was not assigned a group project but for my mid-semester class, I am going back to assigning one. I think students, whether f2f or online, need to be able to work together on a project and function as a team. It gives the leaders in the group an opportunity to rise to the occasion and provides for all the chance to collaborate and work together for a common cause. The group work experience will be important in the business world." This instructor also spoke about how she modified the course based on past student comments and suggestions "I have increased the number of opportunities for my class to explore the internet through extra credit assignments that must be completed by research on the internet. It was a criticism received through my evaluations (students requesting internet assignments) and I took it to heart."

Since many of the instructors had never crafted an assessment plan before some commented on the usefulness of drafting an assessment plan or implementing the pre-test as an assessment tool. According to an undergraduate accounting instructor, "The pre-test results revealed that some students who remained in

class clearly lacked prerequisite knowledge for the course. Either they had not taken the required courses or failed to learn important concepts in their classes...there was also confusion among some students about the distinction between accounting and auditing. This knowledge led me to provide more detailed information from accounting and auditing sources in the conferences.”

The themes from the faculty reflective journals showed how faculty mediated the online classroom environment by assessing the skills, weaknesses, and strengths of their students. In addition, the journals showed how faculty constantly reflected on ways that they could improve their teaching by incorporating new techniques and strategies into the online classroom.

### **Researcher Reviews and Observations and Student Evaluations**

Criteria were used to review the ongoing courses and the archived courses, including the extent to which courses were consistent with the assessment plans and timeline. Using the two aforementioned rubrics, the courses were also reviewed to measure instructor implementation of best practices such as interaction and collaborative learning. The observations of the online course showed that faculty consistently implemented their assessment plans as planned. Consistent with the themes in the faculty journals, all faculty also achieved a score of accomplished or exemplary by the reviewer in the observation of their course content and assessment measures. This was achieved because, for all courses, course materials were presented in a variety of ways, applications to real-life situations were presented, and the instructors had varied forms of formative and summative assessment including papers, case studies, group work, midterms, and final exams.

The average course evaluation score of 4.30 out of a 5-point Likert confirmed that the instructors were considered exemplary by their students. Additionally, a small pool of student comments offered compelling glimpses of how the students in the courses perceived their learning, the course, and the instructor. For example, during course observation it was clear one particular instructor relied heavily on written communication, including mini-lectures and long course announcements to give feedback to students and assist them in learning the materials. Analysis of the student course evaluation for that specific course showed that the students felt that the strongest features of the course were the lectures and the responsive nature of the instructor. The comments of one student captured the general sentiments of the class: “The instructor was wonderful and extremely helpful in every aspect from preparation of assignments to feedback and critiques.” Despite these glowing remarks, students also had recommendations for shorter or fewer assignments and more student interaction, and for the extensive, typed lectures to be transformed into another form or medium. One student stated, “It would be helpful if the lectures were available in web audiovisual format (instructor actually speaking, using power point slides).”

### **Conclusion**

This pilot showed the utility of assessment plans for encouraging faculty to reflect on and improve their teaching, in for what were for many, a novel way. This activity combined with the journaling and the faculty class report layered the reflective experience and allowed faculty to be introspective while focusing on what works and what doesn't in their courses and with their teachings styles. What is also clear is that course interactivity and student satisfaction and engagement are also impacted by the extent to which faculty plan for and link course assessment goals to varying activities formats and assessment measures.

The expansion of this study to a larger sample of faculty will add overall depth to the study and provide an opportunity to compare the experiences of instructors with varying teaching experiences and rankings.

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### **Biographical Sketches**

Cynthia Whitesel is an adjunct instructor at the University of Maryland University College and a visiting lecturer in English and Mass Communications at Lincoln University of Pennsylvania. While she has been teaching online since 1993, her other activities have been in distance learning and faculty training, stressing integrating technology into the classroom, computer conferencing, pedagogy, and assessment. Cindy has designed several undergraduate courses for UMUC and Park University using multi-media. She is currently a doctoral candidate at the University of Maryland at College Park and writing a dissertation, using phenomenological methodology, on the lived experience of teaching within technology.

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