

Assessment Online: A Four-Year Retrospective of Assessing Web-Based Student Learning

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With the exponential growth of distance programs, academic decision makers and faculty must be proactive in addressing critical issues related to delivery and integrity of student learning assessments. Distance education programs must include strategies to ensure the student sitting for an exam is actually the student enrolled in the course, the integrity of the assessment instrument is maintained, assessments are delivered to students in a reliable manner, technical support is available immediately to assist students experiencing technical difficulties during an exam, and students receive feedback relative to their performance on assessments in a timely manner. Historically, many of the issues related to assessment of student learning at a distance have been addressed by assigning projects and papers in lieu of traditional exams. These strategies work well for part-time online students, but not necessarily for students enrolled in full-time programs.

As the field of online distance education matures, leaders in the field are challenged to identify models and methods of assessing student learning for programs in enrolling full-time online students. Currently, literature in distance education almost exclusively addresses assessment of student learning for a student taking 1-2 courses online with 5-20 students per course. Should the same strategies be used to assess learning for students enrolled in full-time online programs taking 15-18 hours per semester? If not, what assessment strategies and tools should be used? If traditional quizzes and examinations are used for the full-time distance students, how does the instructor ensure integrity of the assessment process? In developing full-time Doctor of Pharmacy program, the School of Pharmacy and Health Professions at Creighton University wrestled with these very questions.

One million dollars was granted as seed money from the Institute for the Advancement of Community Pharmacy to the School of Pharmacy and Health Professions at Creighton University for the development of the nation's first web-based entry-level doctor of pharmacy program in the fall of 2001. The program faced many challenges, including close scrutiny by schools of pharmacy throughout the country and the Association of Colleges of Pharmacy Education, (the School's accrediting agency). Given the School's 100 year history of educating pharmacists, and the University's reputation for excellence, the web-based program *had* to maintain the school's high standards and ensure student assessment integrity. To meet this challenge, the Web-pathway Development Committee, charged with guiding the development and implementation of the program, crafted a process and associated policies for assessing the learning of the distance students.

The web-based doctor of pharmacy program admits 50-55 students per year and the students matriculate as a class. Students are enrolled in 15-18 hours of online course work per semester and complete lab-based course work on campus during the summer. As the committee began to discuss strategies for delivering assessments to distance students, it soon became apparent there was a dearth of literature, if any, pertaining to this environment. The committee would need to design a unique and innovative model for assessing student learning on this scale.

Four years of working within the assessment framework developed by the Web-pathway Development Committee resulted in the currently used model. This pioneering model addresses delivery of high stakes exams as well as formative and summative assessments delivered in proctored and non-proctored environments using a variety of applications. Furthermore, the model provides mechanisms allowing

instructors to meet grade submission deadlines set by the University Registrar to maintain students' eligibility for the Dean's list and other academic honors.

As faculty begin the process of developing online course materials, they work with a course development team including instructional designers who assist with the selection of tools for assessment of student learning. The selection process takes into account the course outcomes, type of content, the instructor's ability to develop assessments several weeks in advance of administration, and the amount of time the instructor wishes to devote to learning to use a particular assessment tool. If needed, plans are made to provide faculty, students, and proctors with training in the use of the tools selected.

Faculties choosing to use examinations must determine if the exams are to be proctored or non-proctored. Using the Proctor Policies developed by the School as a guide, students entering the program are charged with locating at least two examination proctors and submitting their names and contact information to the Web-based Pathway Office, which in turn conducts a back-ground check on each. Proctors are then provided with the policies and procedures to be used for examinations. Faculties choosing to deliver non-proctored exams often make use of question banks, adaptive testing, mastery exams, and timed exams to ensure integrity. Proctored and non-proctored exams may be developed using either Questionmark by Perception, Secure Exam software, or the assessment tool available in the BlackBoard course management system.

Faculty training and technical support for online exam development is provided by an online testing manager and instructional designers, School staff personnel working in the Office of Information Technology and Learning Resources. Student technical support is provided by this same Office. Students experiencing problems during an exam may phone the Office use a toll free number reserved for students needing immediate assistance.

Assessment of student learning also occurs using virtual discussion groups, group projects and presentations, individual projects, and low-stakes quizzes. Four years of data from students indicates a definite preference for individual projects and low stakes quizzes. Although the distance students are extremely supportive of each other as they progress through the program and communicate with each other almost daily about issues related to course work, family and friends; they much prefer to not be *required* to work in groups for course requirements.

Formative and summative data relative to the design and delivery of online assessment of student learning is gathered via virtual and face-to-face focus groups, course evaluations, and by comparing the performance of on-campus and distance students enrolled in the same course of study. This data is reviewed by the program's curriculum committee as well as the Web-based Pathway Development Committee. Suggestions for changes based on the data analysis are given to individual faculty, who in turn work with the instructional designers to develop and implement modifications where appropriate.

Biographical Sketch

Tracy Chapman serves as Executive Director of eLearning and Technology for the School of Pharmacy and Health Professions at Creighton University. She received her Masters in Education from West Texas A&M University, and a Bachelor of Science in Business Administration from the University of South Carolina. She has presented numerous workshops locally, nationally and internationally, with the purpose of preparing faculty for moving their teaching and learning to the online environment. She is a lead author on a chapter focused on Education Technology that is in the second edition of the Handbook of Teaching for Physical Therapists.

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