Blended Learning for Students in Health Sciences and Human Services at Mohawk College

Opportunity

Mohawk College in Hamilton is positioning itself as a blended learning institution with the goals of enhancing student learning and reducing face-to-face time in physical classrooms. The priority areas, the three steps in the process, and the faculty training provided are described in eLearn@Mohawk, part of the Pockets of Innovation Series.

As part of the eLearn@Mohawk initiative, all key course information was made available online in 2011. The second stage stresses online course communication and assignments; during the third step, core and supplemental learning materials are delivered online. The goal is to have high-quality contact, teaching, and learning in both the virtual environment and in the face-to-face classroom.

Professors at the college have been integrating blended learning into their course offerings in ways that best suit their students and the content they are teaching. This description focuses on the innovations in Human Services and Health Sciences. The initiatives in Language Studies are depicted in Implementing Blended Learning in Language Studies.

Innovation

Medical Radiation Technologists: Within the School of Health Sciences, Medical Radiation Sciences is a collaborative degree-diploma program offered by Mohawk College and McMaster University, with a common first year and then three years of specialized study in Radiography, Ultrasonography, or Radiation Therapy.

Responding to the college strategy for blended learning, Lyn Paddon, professor and Program Coordinator in the Medical Radiation Sciences program, considered which courses would be best suited for blended learning in the Radiation Therapy specialization. The third-year, summer course, Caring for the Palliative Patient, was

chosen and offered as blended for the first time in summer 2012. In the online sessions, the focus was on reading course materials, viewing online presentations by international experts in the field, and sharing discussion postings on topics such as pain management and students' pre-conceived notions about death and dying. Face-to-face sessions included some lectures, group discussions, and a visit to a hospice.

In the first class, the professor and students discussed why the course was being offered in blended format and how the students could benefit from the flexibility and learning opportunities the design offered.

The Associate Dean, Diane Barrafato, wants to provide a consistent offering to all three streams of the Medical Radiation Sciences Program and as a result, the Palliative Care course is being modified to serve the learning needs of the students in Radiation Therapy, as well as Ultrasonography and Radiography. The re-designed blended course will be offered in summer 2013 to 130 students, requiring additional faculty support. Tutorial leads will be assigned to the various discussion groups after being briefed by the course leader on the approaches to online discussion and the topics to ensure consistency of facilitation and evaluation. The course leader supplies discussion points and criteria for postings, which include each student contributing an original opinion and source reference, as well as responses to a minimum of two other posts. Faculty also add their perspectives to the discussions.

Child and Youth Worker: Within the School of Human Services, the Child and Youth Worker course Introduction to Child and Youth Care Practice offers blended learning modules for both content delivery and the development of online organization and communication skills that the students will need in their practice. Marco Felvus, the course instructor, assessed the course content and its applicability for online vs. face-to-face delivery and how it might best be structured to educate and motivate students.

For example, in week 3 of the course, the content looks at the history of the profession in Ontario and beyond. PowerPoint presentations, museum materials, additional readings, and videos are used to make the content come alive for the students and study questions are provided to focus their attention on key points. The face-to-face class in week 3 was cancelled and the materials were available online from 8 AM on Wednesday until 6 PM on Thursday; the students must cover about three hours of content and online activity in this two-day period.

As this was the first experience with online for many of the students, the professor was available in the classroom for in-person questions at the beginning of the usual face-to-face class time, but no students took advantage of this. There were some online questions, mostly from students who had not read the instructions. All the material in week 3 was also tested at that time, using a timed online test. Most students scored over 70%.

In another online module, terminology specific to the profession is set up using flash cards for content delivery, accompanied by an online glossary. The module on Interaction Skills is also taught online using videos to demonstrate various presentations of the skills. To take advantage of, and demonstrate, the use of online tools, an agency visit is organized online, with students also using online research to prepare a report on the visit. The Christmas project of providing food and gifts to a family is structured using Google Docs and Google Chrome.

Outcomes and Benefits

Medical Radiation Technologists: The course in Palliative Care deals with sensitive and difficult topics. Many students who would not participate in in-class discussions became eloquent and engaged in the online discussions. The online discussions also gave the professor insights into how the students processed the content.

As the course content can be highly emotional, students can view materials and think about and discuss their responses in a safer environment than in the face-to-face classroom.

The course evaluations used at Mohawk do not specifically ask about blended learning but do question the students about course format – which has garnered positive results for blended courses. Specific research is being done to compare the results of blended learning compared to that of face-to-face, including both final marks and more qualitative measures of the student experience and the learning outcomes. The expectation for the blended courses is high quality learning.

Child and Youth Worker: Using timed, online quizzes increases the probability that the study questions for each module are completed as students can refer to them to respond to the questions. Broader research would be impossible within the time restrictions. Students identified with learning disabilities are given extra time for online quizzes.

In a post survey, with a 30% response rate, most students expressed a preference for the blended delivery model. Online test results have resulted in high marks, especially once the student recognized the necessity of working through the online materials before taking the test. This is a first-year course and students have to adapt to the more independent learning environment of a college.

Challenges and Enhancements

Medical Radiation Technologists: Blended learning needs to be carefully and strategically considered at the program level, since it may not be a good fit for every course. The professor/course designer needs to be clear about what is involved in

developing and delivering effective online learning, as it requires more upfront work, as well as anticipation of student needs and possible stumbling blocks and misinterpretations that can be encountered. Development of a blended course takes more time as the online portion lacks the flexibility of the face-to-face classroom and the immediacy of the instructor presence.

Child and Youth Worker: Marco Felvus pointed out that the biggest challenge with blended learning is finding the time to prepare it, as the development involves a very detailed analysis of the learning objectives, what is best done in the face-to-face classroom, and how to both educate and entertain online to ensure student motivation and attention.

Potential

Medical Radiation Technologists: Additional courses are being developed for blended delivery within the Medical Radiation Sciences Programs such as Clinical Oncology in the Radiation Therapy program. This course might use video lectures of oncologists discussing treatment and highlighting the latest research, as well as self evaluation quizzes with automatic feedback. Introduction to Pathology, a first year course for all students, is also moving to blended. In the Ultrasonography speciality, blended delivery will be used for some electives that will be delivered in a compressed time frame of 6, rather than 13, weeks.

Child and Youth Worker: Blended learning often provides a better way of delivering information and engaging students in understanding it. Online competencies also prepare students for the workplace as they learn how the technologies they use for communication can be adapted to learning, research, organizing, sharing, and outreach.

Both Lyn Paddon and Marcus Felvus would welcome discussions and sharing with their colleagues about blended and online learning and how it is best suited to enhance learning.

For Further Information

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