Wiki Technology in the Classroom: Building Collaboration Skills

Nurses are increasingly asked to work with computer and Web-based technologies, and to serve on quality improvement committees in which Web-based technologies may be used for collaboration and teamwork to build the knowledge to improve health care. In addition to the Institute of Medicine (2001) calling on nursing to collaborate with other professionals on interdisciplinary teams, research shows that employers request that graduates of higher education have skills in working in collaborative teams (Association of American Colleges and Universities, 2007).

A wiki is one method of facilitating effective collaboration. A wiki is a Web-based program that allows people to work on a document in real-time on the internet. The technology has worked well in face-to-face meetings in which a common document is being edited as well as in meetings that are held with distance technologies.

In addition to the potential uses in the work world, collaborative learning has been promoted as a valuable teaching strategy. Wiki Web technology is an ideal place to implement this strategy (Richardson, 2010). In an effort to improve collaborative teamwork among students, wikis were introduced in both the graduate epidemiology and undergraduate community health nursing course assignments.

Wikis in Course Assignments

In the graduate program, students were placed in teams to work on a paper that included the in-depth analysis of an epidemiological study and the potential policy implications of the findings. Students who used the wiki were able to collaborate in meaningful ways.

Although students divided the workload, they were able to evaluate each other’s progress toward their goals and edit each other’s information. They engaged with each other in conversation with the chat feature that appears at the bottom of the page where they discussed difficulties they encountered. Finally, they were able to formulate the final draft of the paper. In addition, in real-time, the instructor could evaluate student progress and assure students were proceeding down the appropriate path.

In the undergraduate program, the wiki was used to build a community assessment that included input from key stakeholders. Seventy students in groups of 4 and 5 interviewed community experts and community leaders on the health of the university student population.

The interviews were then summarized and recorded on the wiki Web site for the entire class to view. This created a database for students to draw from as they wrote a summary paper on the assessment of the community. Students were able to recognize that the information they collected was part of the evidence base about the health concerns of the community (of community leaders and professionals).

Informal Evaluation

In informal evaluation by open-ended questioning in each class, it was found that students were positive about the use of wiki technology. The results of inquiry about the specific assignment showed various suggestions for improvement; however, the response to the wiki technology for group work was universally positive. After students engaged the technology, they valued it.

Themes in the feedback included the benefits of building knowledge, monitoring progress, and ensuring that work is not duplicated. The few groups in the graduate program that met face-to-face were able to use the technology as well in meetings as they worked on the document.

Overall, the use of this technology was a success for the students in both the graduate and undergraduate programs. This learning experience, beyond the actual assignment, will give lasting results in presenting students with the ability to incorporate a useful technology into their skill inventory. As noted in a consensus report on learning processes, learners remember more and develop skills used by experts by actively performing the skill. This creates opportunities to learn with understanding and develop constructs that are used to recall and apply learned information (Bransford, Brown, & Cocking, 1999). In these assignments, students were given the opportunity to demonstrate collaboration and technical skills, which increases the likelihood they will be able to recall the information for use in the future.

References


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Personalizing Parkinson's Disease Through the Journey of Michael J. Fox

Fascination with celebrities with health concerns continues to drive the media to deliver an unprecedented amount of coverage via the Internet, television, magazines, and newspapers. Images of actor Michael J. Fox discussing his personal battle with Parkinson's disease and his passion for stem cell research inspire human interest and compassion. Learning-centered education is focused on the individuality of each learner and how to use the most effective teaching strategies to promote the highest levels of motivation, learning, and achievement for all learners (McCombs & Whisler, 1997). The development of the Michael J. Fox case study is an innovative learning-centered teaching strategy that motivates individual learners to construct knowledge through the emotional influence of Michael's experience with Parkinson's disease. This teaching approach caters to diverse learning needs while providing a learning-centered experience that personalizes Parkinson's disease.

Teaching Strategy

This celebrity case study is a homework assignment designed to help medical-surgical students learn about Michael J. Fox's personal battle with Parkinson's disease through the use of Internet resources. Students are directed to Fox's official Web site where they read excerpts of his book Lucky Man: A Memoir (2002). Fox's memoir provides a vivid picture of how the disease was diagnosed, how his treatment has changed, and how his own physical health has slowly deteriorated. The Web site also gives general information on the disease.

Students then watch an online video clip of an interview that Fox granted to Katie Couric and the CBS Evening News (2006). Not only does this 7-minute video clip allow students to visualize how Parkinson's disease physically affects Fox, but it also stimulates the process of becoming more aware of how social and political policy impact the ability to find a potential cure through stem cell research. Students then complete a written assignment on Parkinson's disease demonstrating how Fox's experience changed their understanding of the disease process.

Method of Evaluation

Students were asked to complete an anonymous online survey on their perceptions of having celebrity case studies for course assignments. A 62% response rate (n = 49) was achieved. The majority of students were women (79.6%) between ages 20 and 21 (71.4%).

More than 90% of the students believed that this case study was an interesting, innovative teaching strategy that motivated learning about Parkinson's disease. Requests were made and suggestions were offered for even more celebrity case studies in the future. Students demonstrated that the case study met the learning outcomes of knowledge acquisition on the disease process, treatment strategies, and nursing interventions for Parkinson's disease by achieving an average of 87.32% accuracy on Parkinson's content on their unit and final examinations.

Discussion

The Michael J. Fox case study is one of five celebrity case studies developed specifically for a medical-surgical course. However, there are many opportunities to expand this teaching strategy into other nursing courses.

For instance, a case study on actor Dennis Quaid's twins and the overdose of heparin could be developed for a pharmacology course. In addition, teen pregnancy and public health concerns could be met through a case study on Jamie Lynn Spears. Similarly, the effects of Alzheimer's disease on mental health could be learned through the journey of Ronald Reagan.

Developing case studies based on stories of human interest provides a creative way to teach content. In addition, such case studies increase the ability to create a more meaningful, active learning experience for students.

Use of a Confluent Education Strategy to Develop Empathy in Nursing Students

Expert nursing care for the clinical population of patients with an ostomy is vital. Comprehensive care includes astute assessment of the stoma and the skin surrounding the stoma, evaluation of the characteristics of the stool excreted through the stoma, proper use of ostomy products, individualized nutrition education, and support for individuals adapting to a change in body appearance and function (Fulham, 2008; Fontier-Lewis, 2006; Vujnovich, 2008).

Nursing students can be taught proper assessment skills and proper nutritional education, and provided resources to help patients select appropriate colostomy appliance products. These skills can be practiced in the classroom with the aid of low-fidelity simulation models.

However, it is difficult to teach students how to be empathetic in a situation in which patients may be experiencing a variety of emotions. Empathy, a major component of the therapeutic relationship between nurses and patients, is the understanding and sensitivity to the feelings, beliefs, and situation of another person. It is the development of empathy that allows nurses to acknowledge a patient's situation as unique and adjust the nursing approach to better care for the patient in the most holistic manner.
Nurses should be empathetic with all patients, but particularly for patients with colostomies. With comprehensive support from nurses, these individuals have the capability to return to their normal life routines poststoma formation.

Confluent Education

The ability of nursing instructors to present the experience of individuals with an ostomy to students is a challenging task requiring creativity on the part of instructors and active participation from students. Based on the philosophy of confluent education, the experience of wearing and living with a colostomy was brought into the clinical classroom by having students apply a filled appliance to their abdomens and resume their daily activities.

Confluent education emphasizes the merging of the cognitive and affective domain of learning. The experiencing of emotions augmented the practical and informative content from the classroom. The result was a well-rounded confluent activity that produced awareness and empathy in student nurses.

Learning Activity

During the lecture of bowel and bladder in a fundamentals of nursing clinical laboratory class, nursing students were given the opportunity to apply a filled ostomy appliance to their abdomen. Contents were made from chocolate pudding powder and water and mixed to the consistency of an ileostomy.

Students had access to one replacement ostomy bag in case of appliance malfunction and were encouraged to wear the appliance for 5 days. Students resumed their normal daily activities and kept a journal of the experience.

Many of the students participated in focus groups to discuss this activity, and all of the students agreed that the activity was useful in teaching the concept of empathy. Students described many of the concepts found in the literature related to physical, social, and psychological concerns of patients living with ostomies. Students described feelings of self-consciousness, isolation, extreme emotion, and sensitivity to the noise and feel of the appliance. Students also described scenarios of the appliance leaking while out with friends and the role the appliance played during intimate situations with partners.

Conclusion

This activity was instituted based on the availability of ostomy supplies. Evaluation of the activity by students was positive with recommendations to add odor to the contents to increase the reality.

Brainstorming with the students concluded that there are several applications of this confluent model in nursing education. Suggestions made by students for additional confluent models included wearing a nasal cannula attached to an oxygen tank to mimic chronic obstructive pulmonary disease and wearing a balding wig to mimic alopecia.

References


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The author has no financial or proprietary interest in the materials presented herein.

doi:10.3928/01484834-20101117-04