USE OF BLACKBOARD COLLABORATE FOR CREATION OF A VIDEO COURSE LIBRARY

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This case study examines an innovative way the Blackboard Collaborate video conferencing learning platform was used to record graduate student presentations for creating a course library utilized in individualized student teaching. The presentation recordings evolved into an innovative strategy for providing feedback and ultimately improvement in the students' performance. Moreover, the students' recordings provided a learning environment, which promoted and valued critical thinking, self-evaluation, and self-awareness.

INTRODUCTION

Feedback is a central aspect of the assessment process of student learning in terms of elevating student performance and achievement (Gibbs & Simpson, 2004; Lunt & Curren, 2009). Feedback should relate to performance in terms of goals, criteria, and expected standards (Nicol & MacFarlane-Dick, 2006) and should also be timely, detailed, and specific. Furthermore, it should reinforce content and encourage self-reflection. Lack of timely and meaningful feedback on assignments and uncertainty regarding the workload assessment criteria and weight have been identified as major reasons why students leave higher education (Kirk & Greaves, 2009). According to the literature, evaluation process with video recording strengthens the students' self-esteem and self-confidence. Video feedback is unique because it allows course participants to look at themselves "from a distance," thereby giving them a realistic picture of their own skills (Fukkink, Trienekens, & Kramer, 2011). This type of feedback has been demonstrated to have a more lasting impact on the students' communication skills than conventional education such as lectures or textbook only (Nilsen & Baerheim, 2005). As highlighted by the evidence, it is vital to introduce this teaching and learning method to nurse anesthesia students as supplemental to the traditional faculty feedback and evaluation of students' oral

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The Quarterly Review of Distance Education, Volume 18(1), 2017, pp. 3–8 ISSN 1528-3518

presentations to enhance understanding of the students' individual strengths and weaknesses.

Several studies have established the efficacy of using constructive feedback by videotaping medical students' interaction with a patient to teach and enhance their clinical and communication skills (Lane & Gottlieb 2004; Nilsen & Baerheim, 2005; Ozcakar et al., 2009; Paul, Dawson, Lanphear, & Cheema, 1998). Videotaped constructive feedback has been found to enhance student communication skills when compared to conventional didactic method (Lane & Gottlieb 2004; Nilsen & Baerheim, 2005; Ozcakar et al., 2009; Paul et al., 1998). A study conducted by Lane and Gottlieb in 2004 found 74% of the medical students improved their interviewing skills after video review of their performance. In a prior study Paul et al. (1998) used three different types of feedback while videotaping student interviews, which consisted of self-critique as well as peer- and instructors' feedback. It was found that 73% of the study participants believed that self-observation influenced development of their clinical skills. In addition, this study found that self-critique and peer feedback increased students' awareness of their strengths and weaknesses, thus providing an opportunity to improve their consultation knowledge and skills. The use of various feedback techniques has shown to improve students' clinical skill; however, most students felt anxious during the video recording process. Nilsen et al. (2005) reported similar findings that the students have experienced a considerable amount of anxiety and apprehension before and during the videotaping course, resulting in a strong need for reassurance and a positive evaluation.

Recent studies have demonstrated the benefits of video-facilitated feedback in anesthesia and surgical simulation with improvement in nontechnical skills (Byrne et al., 2002; Savoldelli et al., 2006; Scherer, Change, Meredith & Battistella, 2003). Byrne and et al. (2002) examined the effect of video feedback on anesthesia residents' performance managing simulated anesthetic crisis in a multicenter study. They found shorter "median" time to solve a clinical problem after participants video-reviewed their own performances. Savoldelli et al. (2006) compared the educational efficacy of two types of feedback, oral and videotape-assisted oral feedback, with a no debriefing group during simulation with 42 anesthesia residents in a randomized control study. The authors demonstrated that the provision of oral feedback, either assisted or not assisted with videotape review, resulted in significant improvement ($P < 0.005$) in participants' nontechnical skills. However, the study did not demonstrate a significant difference between the oral and video-assisted feedback groups. Scherer et al. (2003) reported significant improvement in behavior (compliance with trauma treatment algorithms use) after 1 month of videotape feedback of surgical residents during team trauma resuscitations simulation ($P < 0.05$) when compared to verbal feedback alone. Significant improvements were noted in airway, breathing, and blood pressure assessments ($P < 0.001$).

THE CONTEXT AND ASSIGNMENT

This case study describes an innovative use of the Blackboard Collaborate videoconferencing learning platform in a graduate senior level nurse anesthesia course at the University of Miami School of Nursing and Health Studies. As part of the course requirements, students are required to present to peers and faculty a clinical anesthesia topic covering the evidence-based recommendations for anesthesia management. Incorporating these videotaped student presentations support the course objective as it aims to strengthen both critical thinking and oral communication skills. By using such an approach, students are required to examine assigned health conditions in-depth as related to anesthesia practice and evaluate the current evidence-based approaches for best anesthetic management. The presentations are assigned as group projects and assist students in developing skills and strategies by fostering

clear and concise professional verbal and writing communication. Ultimately the students improve their ability to critically evaluate scholarly sources and collaborate in a group setting. Throughout the process the assignment promotes digital literacy in the students through utilization of scholarly search engines and digital data evaluation so important in researching evidence-based recommendations.

COURSE DESIGN AND IMPLEMENTATION

During the semester, the student case presentations were recorded using Blackboard Collaborate learning platform. Students were required to examine in-depth the physiology and pathophysiology of a specifically assigned health condition as related to nurse anesthesia practice and evaluate the current evidence-based literature for best patient management during the perioperative period.

The presentations were assigned as a group project consisting of two to three students. The assignment had specific guidelines with a comprehensive evaluation guided by a rubric of eight specific questions. The questions were as follow: (a) adherence to deadlines; (b) technical quality of the presentation; (c) general knowledge base on the subject and content; (d) discussion of anesthesia implications and perioperative management; (e) integration of current trends and literature review on the subject for anesthesia management; (f) personal presentation; (g) group members participation and work integration; and (h) development and submission of a case scenario for online class discussion. All student presentations were video recorded using Blackboard Collaborate. The goal of the recordings was to create a library with students' presentations to access for self-critique and review after completion of the presentation (Figure 1 & Figure 2). The presentations were named and converted into videos using multimedia format MPEG4 (*.m4v, *mp4) (Figure 3). A course library link was created in the course content in Blackboard, providing a connection to the stored videos. All videos were secured and accessible only by faculty assigned and students enrolled in the course. In addition, all students signed a talent-release form with the University of Miami School of Nursing and Health Studies.

The overarching benefit of the recorded presentations library via Blackboard Collaborate was to provide both self-critique and peer and instructors' feedback. This is similar to the nurse anesthesia simulation scenarios debriefing process, with which faculty and students are familiar with: What is the experience? What went well? What can the student change/improve next time? The students' familiarity with the debriefing process was ideal in engaging the students throughout the video recorded video presentations.

Benefits of the library appear to include the availability to the students to review previous

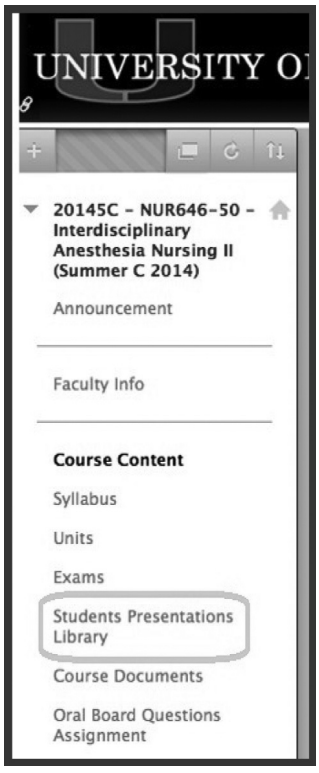

FIGURE 1
Folder With Student Presentations Library

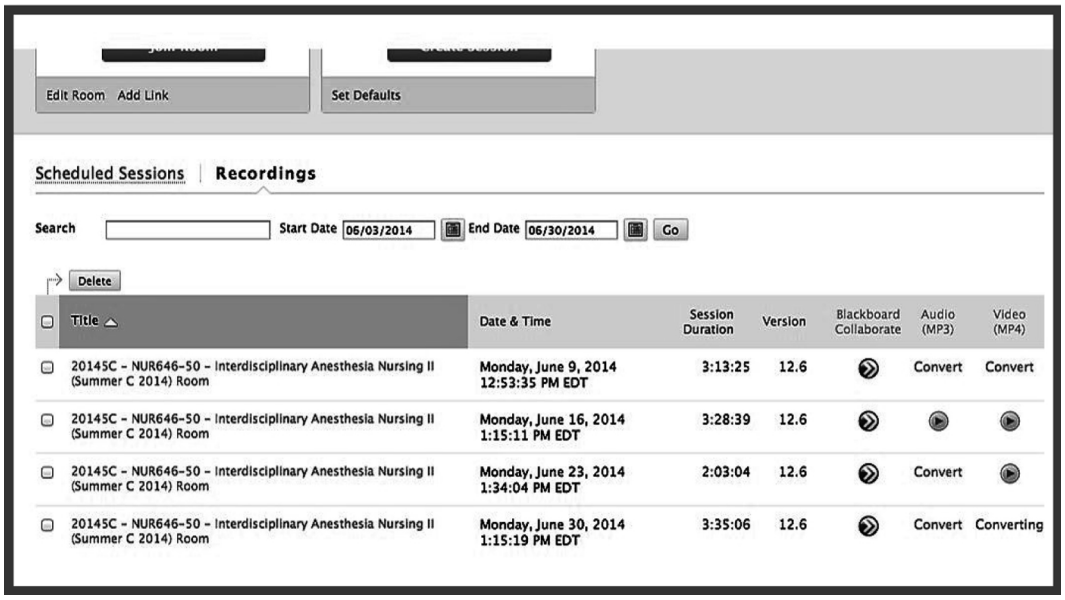

FIGURE 2
Contents of Library

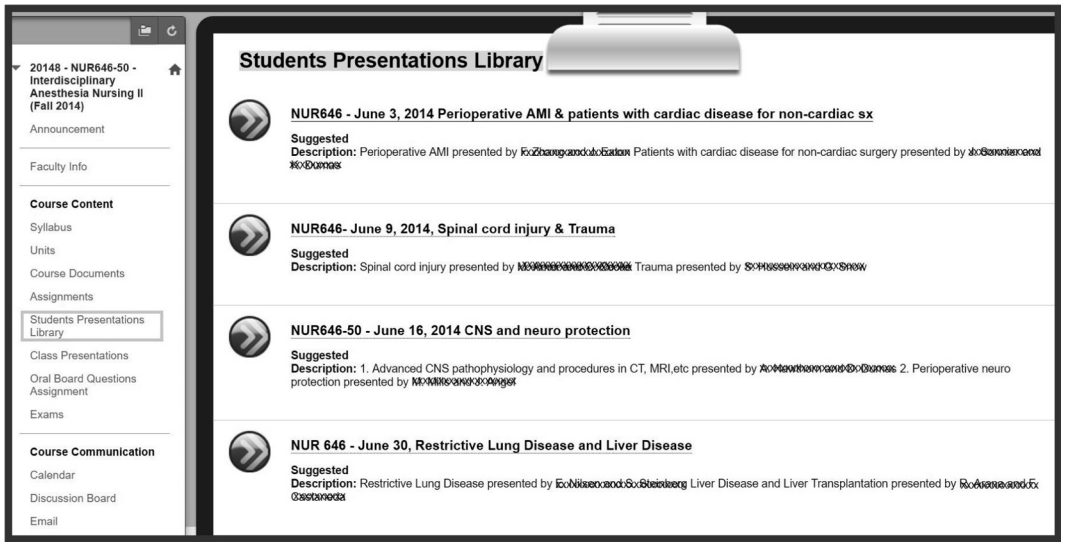

FIGURE 3
Converting Presentations Into Video Format

presentations and study the material at their own convenience and pace. Interestingly, through faculty anecdotal accounts, the students after reviewing their recorded presentation appeared less likely to challenge their grade. An additional benefit, although not directly related to the student feedback, is the faculty can select and post presentations to

FIGURE 4
References for New Students

provide an example for future classes when explaining the expectations, format, et cetera (Figure 4). In fact, building a student presentation library could be utilized as a remediation tool for a student who fell out-of-sequence with the program and required individual course enrollment.

FACULTY CHALLENGES AND SUGGESTIONS

Some of the challenges encountered in recording the students' presentations with Blackboard Collaborate were simple technical fixes such as assuring the "record" and "sound" was turned on during the recording. Some issues proved more challenging, such as discovering in the process of video conversion when the presentations were very long—over 60 minutes, and the conversion was taking up to 1 day. This could be prevented if faculty review Blackboard Collaborate suggestions and discuss in advance their course plan with an instructional designer. However, after the initial few presentations, running the Blackboard Collaborate recording was streamlined and much more convenient than utilizing conventional video recordings. Suggestions include scheduling academic technology instructional designer support in advance for the first few classes and ensuring that the software is current and updated.

CONCLUSION

It is the belief of the faculty that the video recording feedback could be used to provide the foundations for learner autonomy and to inform the learner on his or her actual state of learning or performance. It can be one of the methods to improve nurse anesthesia students' professional development, especially in the area of communication skills. By reviewing the video recordings of their presentations, the students could evaluate their own performance and develop awareness of their strength and weaknesses in the area of communication. The video recordings can be stored in a course library and can be accessed by the students at any time to review previous presentations and study the material at their own convenience and pace.

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