



## Using lecture capture: A qualitative study of nursing faculty's experience



Patricia E. Freed <sup>\*</sup>, Julie E. Bertram <sup>1</sup>, Dorcas E. McLaughlin <sup>2</sup>

School of Nursing, 3525 Caroline Mall, St. Louis, MO 63104-1099, United States

### ARTICLE INFO

#### Article history:

Accepted 19 June 2013

#### Keywords:

Lecture capture  
Tegrity  
Technological stress  
Nursing  
Faculty  
Nursing students  
Pre-licensure programs

### SUMMARY

**Background:** As lecture capture technology becomes widely available in schools of nursing, faculty will need to master new technological skills and make decisions about recording their classroom lectures or other activities.

**Objectives:** This study sought to understand faculty's experience of using a new lecture capture system.

**Design and Setting:** This qualitative study used Kruger's systematic approach to explore undergraduate nursing faculty's first-time experience using a lecture capture system purchased by the university.

**Method:** Four focus groups were conducted with a total of fourteen undergraduate faculty using lecture capture for the first-time. The interviews were recorded and transcribed and then analyzed by the researchers.

**Results:** Four themes were identified from the faculty interviews. Two of the themes expressed faculty's concerns about the teaching role, and two themes expressed the faculty's concerns about student learning.

**Conclusion:** Participants experienced stress when learning to use the new lecture capture technology and struggled to resolve it with their own beliefs and teaching values. The impact of lecture capture on student learning, impact on class attendance, and the promotion of a culture of lecturing were revealed as important issues to consider when lecture capture becomes available.

© 2013 Elsevier Ltd. All rights reserved.

### Introduction

Lecture capture is the new buzzword in classroom technology (Ford et al., 2012). Lecture capture involves using classroom technology to digitally record class activities for later retrieval. Recording lectures is not a new concept in education. However, in the last ten years the technology market for lecture capture has grown and universities can invest in affordable, cloud-based systems to keep up with the competition (Waters, 2011). Lecture capture has been touted as a means to address limited resources, decrease faculty workload, increase sharing and collaboration, and improve students' study habits. Some nursing programs are interested in lecture capture as a solution to the retention of non-traditional students (Merrill et al., 2006) and as a means to increase enrollments as admissions expand (Harrison, 2010). With resources allocated and keen interest from students (Owston et al., 2011; Purcel and Fang, 2012), nursing faculty will soon have access to lecture capture and will need to make decisions about how to use it in their courses. No studies were found which explored nursing faculty's response to using lecture capture in their classrooms. This qualitative descriptive study was undertaken to explore the

experiences of undergraduate faculty who are using lecture capture for the first time.

### Literature Review

As a relatively new technology, there is little in the nursing literature to help us understand how faculty adapt to the use of lecture capture technologies, or how the practice of capturing lectures might affect nursing students. To understand faculty's response, we drew on literature on technostress, a maladaptive response to technology which has been identified in nurse educators (Burke, 2009) and other educators who use technology (Al-Fudail and Mellar, 2008). There are many studies and reports of college students' use of lecture casts, podcasts or other types of classroom supplements and a small but increasing number of studies in nursing. We drew on these to better understand how lecture capture affects students.

### Technostress

Clearly not everyone responds to a new or updated classroom technology (CRT) in a negative way. For instance, faculty at Coppin State University revised their curriculum and reported that lecture capture enhanced faculty–student relationships, because the learning environment changed to improve students' study habits (Day Black and Watties-Daniels, 2006). The report did not include information about how faculty adapted to the use of the new technology, but, it would be reasonable to assume that change was stressful. Brod (1984) coined

<sup>\*</sup> Corresponding author. Tel.: +314 977 8912; fax: +314 977 8819.

E-mail address: [pfreed@slu.edu](mailto:pfreed@slu.edu) (P.E. Freed).

<sup>1</sup> Tel.: +314 977 8998.

<sup>2</sup> Tel.: +314 977 8988.

the term, “technostress” to explain the stress that resulted in anticipation or use of a new technology. According to Brod, technostress is fueled by a fear that failure to master the technology could threaten one’s survival. Because technostress is isolating and may influence people to treat one another less humanely, it is bad for human relationships (Brod). Faculty who are experiencing technostress may be less able to provide the supportive caring relationships needed by nursing students (Chou et al., 2003; Diekelmann, 1990). Negative faculty–student relationships have been associated with increased student stress, which in turn decreases student wellbeing, self-efficacy, self-esteem, learning, persistence, and success (Del Prato et al., 2011).

#### Lecture Capture

Studies of college students indicate that the student response to having access to a recorded classroom lecture (a lecture cast) or other classroom supplement is favorable (Echo360, 2010; May, 2008; Van Zanten et al., 2012; Vajoczki et al., 2011). Students listen to lecture casts for test review, to clarify concepts and to substitute for class absence (Copley, 2007; Echo360, 2010; Larkin, 2010; Purcel and Fang, 2012). College students report that lecture casts help them retain material which improves their grades (Nagel, 2008). Nursing students surveyed about lecture casts, reported similar benefits and appreciated being able to learn at their own pace (Cooke et al., 2012). The nursing students preferred live-lectures, but wanted the recordings as ‘back-up’ not replacement for lectures. Nontraditional use of lecture capture, referred to as, ‘flipping’ or ‘inverting’ the class, and the ‘backwards classroom’ involves recording the lecture for students’ pre-class listening. This learning before lecture (LBL) strategy has been considered as a way to free up class time for more involving class activities. In non-nursing courses the inverted classroom contributed to student performance on tests when compared to traditional classrooms (Moravec et al., 2010; Pierce, and Fox, 2012). However, mixed results were found in another study. Students in an inverted class compared with those in a traditional class were more collaborative and supportive of one another, and open to innovative teaching strategies, but they were dissatisfied with the course design and more confused about what learning was expected of them (Strayer, 2012).

Faculty are often concerned that lecture capture will encourage students’ absence from class (Dobkin et al., 2010; Larkin, 2010). But studies have found no influence (Bryans Bongey et al., 2006; Brotherton and Abowd, 2004) or that students are motivated to miss class when lectures are available (Holbrook and Dupont, 2011), especially in large classes where students feel disconnected (Traphagan et al., 2010). Class attendance and interaction with the teacher and peers are associated with academic success (Chen and Lin, 2008; Rocconi, 2011). Promoting class attendance may be an important issue in nursing programs. While it appears that students believe lecture capture can enhance their learning, more research is needed to ascertain the effects of lecture capture on actual learning outcomes and how best lecture capture can be used for study and remediation. An issue that remains unclear is why class attendance makes any difference if what occurs in the class can be recorded and accessed later. There is a growing body of evidence to support the use of active learning strategies (Dearmon et al., 2013; Everly, 2013; Ironside, 2006; Scheckel and Ironside, 2006) rather than lecture. Active strategies better prepare nursing students to make serious, often rapid decisions that affect people’s lives (Benner et al., 2009). More research in nursing is needed to help nurse educators consider how best to use lecture capture to maximize benefits for students.

#### Background

Opportunity for this study arose when it was learned that the university was providing a campus-wide lecture capture system. The university purchased Tegrity Learner Systems, which is a fully

automated lecture capture system, marketed as an affordable, easy to use solution with personalized learning features (McGraw Hill, 2012). The recordings, made with Tegrity, captured the instructor’s voice and the power point screen in the classroom. Conversations with students were not recorded because most classrooms did not have overhead microphones or the quality of such recordings was poor. Training for Tegrity was provided so it could be used for classes which were slated to begin within the week. Faculty at the School of Nursing had no prior experience with the technology. The system had been piloted over the summer and faculty learned that students were eagerly anticipating that all lectures in the undergraduate program would be recorded. Class sessions vary from 1 to 6 h and faculty made individual determinations about how long a recording of the class might last. Class sizes vary, but some are very large with more than 100 students in a section. Undergraduate faculty are usually working towards tenure and may feel vulnerable to the receipt of negative evaluations from students. A culture of lecturing exists within the program and students are often resistant to teaching strategies that require more active participation, such as unfolding cases, or small group activities. Faculty struggle with concerns about using nontraditional teaching strategies when strong pressures to cover content and to prepare students to pass certifying exams exist. Focused interviews for the study were held after training was completed and after faculty had begun to use the new lecture capture system in their classes. Approval for the study was obtained from the university’s Institutional Review Board.

#### Methodology

To explore nursing faculty’s experience using lecture capture a modified version of Krueger’s (1998) systematic qualitative approach was used. The steps in the process were: a. generation of semi-focused interview questions (sequentially ordered, and piloted), b. conduction, recording and transcription of focus group interviews, c. debriefing of moderators (author/researchers) after each interview, d. independent reviewing and coding of the transcribed interviews by each of the researchers, e. joint extrapolation of main themes and recoding by the research team, and f. planning to disseminate results and write the report. According to Seidman (2006), the flexibility of a semi-structured interview allowed the researchers to explore avenues worthy of exploration which arose during the interview, while the guide helped in assuring that comparisons among focus groups could be made.

Participants were recruited from faculty teaching in the pre-licensure programs, who had recently been trained in the use of new lecture capture technology (Tegrity). All participants were engaged in using lecture capture for the first time. Fourteen of the possible 20 full-time faculty volunteered to be interviewed. The participants were all Caucasian females who mostly rated themselves as proficient with technology on a scale of expert, proficient or novice. The average age of participants was 55 and the average number of years teaching was 17.

Participants were assigned to one of four focus groups to achieve group homogeneity, which is considered key to maximum disclosure (Guidelines for conducting a focus group, 2005). Interviews were conducted by the authors who were also learning to use lecture capture technology for the first time. One member of the research team attended all four focus groups, operated the tape recorder and kept field notes. Interviews lasted approximately 1 to 1.5 h. All four focus groups were conducted using the same process and the same sequence of questions.

#### Findings

Four themes emerged. There were two themes concerned with teaching role and identity, and two themes concerned with student learning.

Download English Version:

<https://daneshyari.com/en/article/10316481>

Download Persian Version:

<https://daneshyari.com/article/10316481>

[Daneshyari.com](https://daneshyari.com)