

STUDENT USE OF DIGITAL VERSIONS OF CLASSROOM LECTURES IN TWO DIFFERENT CURRICULAR MODELS

Kathryn. Lovell, PhD, Geraud. Plantegenest, MA
Academic Programs, Michigan State University College of Human Medicine, USA

Purpose: Digital recordings of live medical school lectures, with variable speed playback options, are available for students in Year 1 (discipline-based curriculum primarily delivered by classroom lectures) and Year 2 (modified problem-based learning curriculum with up to 7 lectures per week). The purpose of this study was to assess student perspectives on the extent and pattern of use of the digital materials, features important to students, and the perceived impact on student performance, and to determine if there were differences between students in the two types of curricular models.

Methods: Camtasia Studio (TechSmith, Okemos, MI) was used to record classroom lectures (audio and screen capture) for most of the Year 1 and Year 2 lectures. After lectures, technology staff prepared files for web streaming and for download, available through the course management system. Surveys were conducted at the end of fall semester to determine the extent of use, important features, and perceived effectiveness of the online lecture materials. The response rate was 96% for Year 1 students and 57% for Year 2 students.

Results: Feedback from students indicated an extremely positive impact. For Year 1 student respondents, over 87% view some or most of the online basic science lectures to some extent. Most students reviewed difficult concepts and/or watched most of the lecture again, in addition to usually attending the live lectures; 17% indicated they mainly watched the videos instead of attending lectures. Most students indicated that online lectures are just as effective (57%) or more effective (25%) than live class lectures; 18% said online lectures are less effective, and many comments indicated that live lectures are extremely important. Over 85% indicated a positive effect on study habits and exam scores ("I learned the material better"). Most students (96%) used the variable speed playback option, and all considered it very useful (marked 4 or 5 on a 5-point scale). For Year 2 students, most responses were similar, but there was a higher percentage indicating that online lectures are more effective (47%) compared to live class lectures.

Conclusions: Preclinical medical students in two curricular types perceive that online lecture recordings with variable speed playback are an important component for studying basic science content. Most students use the online lecture files in addition to attending live lectures, in order to review and master difficult concepts. Further analysis of the value of specific features and the patterns of use of the video files will assist with strategic planning for educational technology to improve student learning.

Contact information: Kathryn Lovell, Ph.D., CHM Office of Academic Programs, A254 Life Sciences, MSU, East Lansing, MI 48824; lovell@msu.edu