Currents in Pharmacy Teaching and Learning 9 (2017) 108–114

Contents lists available at ScienceDirect

Currents in Pharmacy Teaching and Learning

journal homepage: www.elsevier.com/locate/cptl

Short Communications

The impact of proctored online exams on the educational experience

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ARTICLE INFO

Keywords:
Distance education
Online learning
Proctoring
Pharmacy
Academic integrity

ABSTRACT

Purpose: This study explored new ways to maintain academic integrity for large enrollment, completely online courses. We examined the use of ProctorU as our proctoring strategy with the objectives to identify any implementation challenges and understand the impact of using an online proctor on the student experience.

Methods: In fall 2013, students were surveyed after each exam. Based on these preliminary findings, ProctorU-related questions were included in the course evaluation administered in spring 2014. A mixed-methods analysis plan was used to examine the results, including quantitative analysis and qualitative analysis of open-ended survey questions.

Results: In the fall 2013 surveys, 88.95% of students reported being satisfied with their experience using ProctorU. Of those who were unsatisfied, following three emerging themes were identified: took too long to setup, technical difficulties, and personnel issues with proctors. In the spring 2014 course evaluation data, the majority of students rated the experience "good" (57.53%), but a large number of those same students also commented on issues they encountered. Over half of the students indicated that the use of ProctorU would influence their future decision to take another online course, either negatively or positively.

Conclusions: The question of how to maintain academic integrity with online courses is still an ongoing question, but this project demonstrates that online proctoring does influence the educational experience in ways that must be considered when determining the risk and benefit balance of proctored and unproctored assessments.

Introduction

The Online Learning Consortium 2013 Survey of Online Learning Report from *Grade Change: Tracking Online Education in the United States, 2013* reports that 7.1 million of higher education students are taking at least one online course and the percent of academic leaders rating the learning outcomes in online education as the same or superior to those as in face-to-face instruction, grew from 57% in 2003 to 74% in 2013.[1] These two statistics demonstrate that online learning has become a common and accepted component of the higher education experience.

Another common feature of online courses is high student enrollments. With high enrollments, many instructors feel compelled to utilize multiple-choice exams as a workload management strategy. The use of multiple-choice exams not only offers the advantage of standardized responses, but also includes the disadvantage of depersonalized demonstration of learning and real cheating

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http://dx.doi.org/10.1016/j.cptl.2016.08.037

potential. While online learning has become a more accepted educational experience, the question of academic integrity for online exams remains.

Assessment integrity is an important and challenging issue, especially as testing becomes more commonly distant from the classroom setting. Online exams can be proctored in a variety of ways and they include: in-person testing, either by requiring students to physically attend a testing session at the institution or arrange for an approved proctor remote from the institution (such as a testing center or individually arranged proctor), relying on an honor system, or utilizing online real-time proctor services.

The impact of real-time online proctoring on the educational experience has not been reported in the general educational or health professional educational literature, but the use and concern about this approach has been described in educational sources. In The Chronicle of Higher Education's April 15, 2013 article "Behind the Webcam's Watchful Eye, Online Proctoring Takes Hold,"[2] Steve Kolowich specifically reports on the potential "intrusiveness" of real-time proctoring services, such as ProctorU. This project was designed to examine the potential influence of real-time online proctoring provided by ProctorU on the educational experience.

ProctorU is a for-profit company that contracts with educational institutions to provide real-time, online proctoring services through utilization of a microphone and webcam. Students schedule exams and then connect with their proctor through ProctorU's website. Exams can be taken from any location with internet access. Students connect to a live proctor who guides them through the process and monitors the student using the student's webcam as they take the exam. Prior to exam initiation, the Proctor uses the webcam or a reflective surface to obtain a 360° view of the student's workspace to ensure no unauthorized materials were present. Students are required to maintain both an audio and visual connection to the proctor throughout the session. Students must also show an ID to verify identity before beginning the exam. At the time of this study, students paid a $15 fee per exam as long as they scheduled it 72 hours in advance. The use of ProctorU required technical capabilities above and beyond baseline requirements set by the university for students.

Rationale and objectives

We offer a variety of online courses to undergraduate, professional, and graduate student audiences. To explore new ways to maintain academic integrity for our large enrollment, completely online courses, we examined the use of ProctorU as our online proctoring strategy for two of our undergraduate online courses.

For this project, we had two primary objectives and they are as follows: (1) identify implementation challenges for the instructional team and (2) understand the impact of using an online proctor on the student experience.

Methods

Two of our large enrollment online undergraduate courses utilized optional online proctoring (ProctorU) for the 2013–2014 academic year. While these courses are not part of the PharmD program, they do have a pharmacy designator and are considered sampler courses for students potentially interested in a career in pharmacy. Both are introductory 1000-level courses covering topics such as over the counter medications and common prescriptions medications. Students are from a variety of undergraduate programs and have varying experience with online courses. For many students, this is the only online course they are enrolled in during the semester. Students in these courses had the option of using ProctorU or attending in-person testing sessions proctored by a teaching assistant. In-person testing was offered twice weekly (Mondays and Fridays) for two hours. All exams were proctored, regardless of how the student chose to take the exam. Students could take the exams any time before the due date. They were instructed that it would be scholastic dishonesty to share any information regarding the exam with classmates who had yet to take the exam. These were the first two semesters that ProctorU was used on a large scale in the College of Pharmacy. Previous uses were limited to a handful of students per semester as in-person testing was still the primary testing strategy. This study received Institutional Review Board (IRB) exempt approval on September 27, 2013. The study number was 1309E43764.

Data sources included a student survey administered fall semester 2013 focusing on the operational implementation of a real-time online proctored exam in two completely online pharmacy-content undergraduate courses. The survey utilized internal logic in that the first question asked whether students took the exam in-person or through ProctorU, and then subsequent questions were based on their answer. Students who used ProctorU were asked five additional questions such as wait time (defined as time spent waiting for online proctor to connect), setup time (time spent verifying identity, monitor requirements, and gaining access to exam), and their satisfaction with the experience. Students who took the exam in-person were asked why they made that choice as well as their satisfaction with the exam taking experience. Responses were collected in a series of post-exam surveys fall semester 2013 in both courses. The surveys were used to monitor student experience throughout the semester as well as for data collection. This semester's survey was primarily concerned with any technical or procedural issues that could arise. One course had four exams, and the other had three exams. Surveys were optional and students received a small amount of extra credit for completing the surveys.

Based on the preliminary findings of the fall student survey, ProctorU-related questions were included in the course evaluations that were administered at the end of spring 2014. These additional questions were included in the course evaluation for both courses. These questions aimed to understand how the use of a real-time online proctoring strategy impacted the testing experience as well as how proctoring influenced the impression of fairness and legitimacy to the grade earned. The questions are stated in Figures 2–4. As both courses are only one semester long, different students were enrolled in each course in the fall and spring semesters.

The purpose of the mixed-methods analysis plan was to examine the use of ProctorU as an online proctoring strategy for two of our undergraduate online courses, both for implementation challenges and impact on the student experience.