

TRANSITIONING FROM FACE-TO-FACE TO ONLINE EXAMS: DEVISING A COURSE-SPECIFIC STRATEGY TO DETER CHEATING

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In spring 2020, educators across the globe faced unprecedented challenges, as the global pandemic forced them to convert face-to-face courses to an online format. Instructors with often limited experience in online teaching, were tasked – practically overnight – with mastering new software, re-inventing class management techniques and ways of motivating/interacting with their students, and, perhaps hardest of all, maintaining quality standards with regards to academic integrity (Rapanta et al., 2020). In this paper, we focus on the latter topic, exploring conditions and strategies that support assessment quality and safeguard the integrity of written exams. Our underlining principle is that although institutions are responsible for buying tools, providing access to resources and offering support, the instructor plays a primary role in deterring cheating (Chiricov et al. 2020, Gottardello et al. 2020).

Maintaining quality standards in assessment methods is important to University academic leadership, faculty, as well as external stakeholders. The authors maintain the view that the majority of students also value efforts to safeguard assessment methods and the quality of their studies. While the process for face-to-face exams, refined through extensive experience, is well structured and moderated and has been followed for a number of years without incidences, the emerging situation led faculty, administrators and also students alike, into uncharted territory. It should be noted that, while there is considerable experience regarding online programmes of studies, the current situation of “emergency remote teaching” diverges from the careful design of an actual online course; rather, it is a “temporary shift to ... an alternate delivery mode, due to crisis circumstances”, that fails to fully utilise the strengths of the online environment (Hodges et al, 2020). Similarly, while a wealth of

alternative assessment methods exists and could be built by design in an online course, a frequent scenario during the pandemic is for traditional face-to-face exams to be converted to an online version. For an instructor pressed for time, and with limited experience in online teaching, an appealing solution is to keep exams in their familiar format and invigilate the students through a teleconferencing system. E-proctoring software is also available to monitor students in this manner, while also using technology to lock down their computers if needed, and even analyse their behaviour and flag suspicious activity. While in theory e-proctoring software can recreate face-to-face exam conditions at home, past experience shows that there can be many different ways for students to cheat (Bretag et al., 2019), and evidence shows that relying totally and solely on an e-proctoring system may not be the most effective solution (Fuller et al., 2020). Worse yet, inefficient invigilation can lead to students gradually cheating more (Chen et al. 2020, Monteiro et al. 2018); something that can only be expected to aggravate as the initial shock and uncertainty regarding online assessment is wearing off.

While it would be unrealistic to assume that a universal strategy can maintain integrity across different academic fields and modes of exam, a combination of different methods can maximize effectiveness against academic dishonesty (Guangul et al., 2020). We propose that a course-specific strategy should be devised by instructors, taking into account their courses’ specific needs, an assessment of the main threats to the integrity of their exams and of the tools/strategies available to safeguard them. Adding to these, when designing an exam, one should consider their students’ differing sets of abilities and computer literacy. The aim of this work was therefore two-fold: developing a framework

for charting interested stakeholders' concerns; and exploring the various tools and solutions available to help alleviate them.

Prior to our methodology, at the institutional level, a series of focus groups were organised involving faculty, programme administrators and experts on regulations of the national quality assurance accreditation authority, to identify concerns and requirements of involved stakeholders. It soon became clear that there is no singular solution to fit all subject areas. Hence, a general framework was prepared comprising an extensive number of proposed assessment methods and, upon selection of an e-proctoring system to accompany them, was disseminated to faculty. During Phase 1, the available options were discussed at the School/Department or Programme level, to identify common needs between different courses, examine, through secondary research, to what extent the e-proctoring software could support them, and prepare a shortlist of assessment methods to be used. This was deemed necessary, as to minimize the requirement for training among our students. In Phase 2, instructors chose one of the shortlisted exam methods for each of their courses, and exams were organised. Issues arising were troubleshooted and taken into consideration when designing subsequent exams. In Phase 3 we collected feedback through focus groups and interviews, identified common issues and compiled a list of proposed solutions for them. The outcome of the last phase was therefore to supplement the frameworks of written examination options with proposed guidelines and the required parameterization of the exam conditions, in order to avoid common problems and deter cheating. A survey among faculty and students is scheduled to take place at the end of the Spring 2021 semester,

in order to assess the extent to which the proposed solutions address their concerns.

To better illustrate the methodology followed, we provide some practical indicators. Depending on the course material and the mode of exam chosen (e.g. open-book vs closed-book exams) different quality concerns prevailed. For example, when testing students' theoretical knowledge, access to unauthorised materials is a major issue; whereas when solving problems, the main point of concern is collusion. Both e-proctoring software and Learning Management Systems can help alleviate a lot of these issues (e.g. by offering the exam in a locked-down environment, shuffling questions and/or answers so that quick communication between examinees becomes impossible, or offering alternative versions of the same problem to each student); we have identified the required parameterization options and discuss their relative merit. Understanding the options available can also assist in reformulating questions in order to better fit the online environment; for example converting essay questions to more interactive forms, or rephrasing questions in order to avoid offering key words for online searching, or easy descriptions to an outside collaborator.

Having access to a defined framework for online exams enables faculty and University administrators to communicate efficiently to their students what is expected of them, and help them prepare for their exams; but it also allowed us to predict and take measures to prevent the most common problems arising during the exams, so as to maintain their integrity during the transition from face-to-face to online teaching. This is also expected to make online assessment more efficient and less stressful, for both the students and the instructors.

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