

Overcoming Online Assessment Challenges in Time of a New Normal: Case Study of Belhadj Bouchaib University

تجاوز صعوبات التقييم عن بعد خلال الظروف العادية المستجدة جديدة:
جامعة بلحاج بوشعيب نموذجا

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ISSN: 2716-9359

EISSN: 2773-3505

Received 14/12/2021

Accepted 06/05/2022

Published 01/07/2022

Abstract

When the COVID-19 pandemic started, higher education, like all other industries, was affected. Institutions around the globe have experienced an almost sudden shift to online learning in an effort to slow the spread of the disease. Online learning was a panacea for continuing education during the pandemic, especially in higher education institutions. Conducting assessments online during this time of a new normal poses tremendous challenges for teachers and learners owing to lack of preparation superimposed with the inherent flaws of online assessment. The current study scrutinizes the challenges of online assessment during COVID-19 incident in the Algerian higher education institutions taking Belhadj Bouchaib University as a case study. Online questionnaires were prepared and administered to 50 participants. The study focused on the challenges of online assessment in general and academic misconduct in particular. The findings disclosed that the predominant challenges labelled in online assessment were academic misconduct, infrastructure, coverage of learning outcomes, and commitment of students to submit assignments. To attenuate academic misconduct, online presentation was found to be the best approach. Preparing different questions to each student was also found to be a good alternative to control academic honesty breaches. Integrating different assessment methods; for example, report submission with online presentation, aids to reduce academic misconduct since the instructor would have an opportunity to confirm whether the submitted work is the student's own work or not.

Keywords: Academic misconduct; Covid-19 pandemic; higher education; online assessment; teachers

Résumé

Lorsque la pandémie de COVID-19 a commencé, l'enseignement supérieur, comme toutes les autres industries, a été touché. Les établissements du monde entier ont connu un virage presque soudain vers l'apprentissage en ligne afin de ralentir la propagation de la maladie. L'apprentissage en ligne était une panacée pour la formation continue pendant la pandémie, en particulier dans les établissements d'enseignement supérieur. La conduite d'évaluations en

ligne pendant cette période d'une nouvelle normalité pose d'énormes défis pour les enseignants et les apprenants en raison du manque de préparation superposé avec les défauts inhérents de l'évaluation en ligne. La présente étude examine les défis de l'évaluation en ligne pendant l'incident de la COVID-19 dans les établissements d'enseignement supérieur algériens, en prenant l'Université Belhadj Bouchaib comme étude de cas. Des questionnaires en ligne ont été préparés et administrés à 50 participants. L'étude s'est concentrée sur les défis de l'évaluation en ligne en général et de l'inconduite académique en particulier. Les résultats ont révélé que les principaux défis mentionnés dans l'évaluation en ligne étaient l'inconduite scolaire, l'infrastructure, la couverture des résultats d'apprentissage et l'engagement des étudiants à soumettre des travaux. Pour atténuer l'inconduite scolaire, la présentation en ligne s'est avérée la meilleure approche. La préparation de questions différentes à chaque étudiant a également été jugé être une bonne alternative pour contrôler les violations de l'honnêteté scolaire. Intégrer différentes méthodes d'évaluation ; par exemple, la soumission de rapports avec présentation en ligne aide à réduire l'inconduite scolaire puisque l'instructeur aurait l'occasion de confirmer si le travail soumis est le travail de l'étudiant ou non.

Mots clés: Inconduite académique ; pandémie de COVID-19 ; études supérieures ; évaluation en ligne ; enseignants

Introduction

The coronavirus pandemic has upended the world's education system, as most schools and universities around the globe have shut their doors for extended periods to avoid the spread of the virus. Once it is recognized that the virus is transmitted by direct contact and surfaces in the immediate environment with infected person or with objects used by the infected person (WHO, 2020), higher institutions are obliged to suspend face-to-face classes. Consequently, higher institutions have rushed to remote teaching and online classes. This, however, creates unprecedented challenges in terms of getting used the technologies and in accessing essential facilities such as laboratories (Cooper & Tschobotko, 2020).The internet varies from any other technology that has been used before for teaching. It is widely accepted and applied in higher education institutions. It is a fact that the online learning has been implemented in broad applications, but still, it did not gain the same broad satisfaction. The online learning presents various obstacles that created many barriers for satisfaction. Since there were no clear policy and guidelines in higher institutions on online teaching, several questions such as what to teach, how to teach, what should be the duties of the teacher and the student, the line of duty of the teacher, the teaching environment, and the implications for education integrity, etc., were fuzzy. The current study scrutinizes the challenges of online assessment during COVID-19 incident in the Algerian higher education institutions taking Belhadj Bouchaib University as a case study. Online questionnaires were prepared and administered to 50

participants. The study focuses on the challenges of online assessment in general and academic misconduct in particular.

1. Literature Review

1.1 Online Teaching Flaws

Issues like teachers' and students' experience on online teaching, the change on working time due to COVID-19 for some students, the infrastructure and the inconvenience of working at home are crucial challenges of remote teaching (Zhang et al., 2020). The existing and inherent remote teaching problems superimposed with the current and unprecedented problems, i.e., unavailability of policies, guidelines, enough infrastructure and experiences of teachers and students make the challenge more difficult. Kebritchi et al. (2017) have studied the issues and challenges confronted in online teaching and determined three main categories of challenges that are connected with teachers, students, and content development.

The other challenge related to COVID-19 is assessing students remotely. In higher institution, assessment has three major purposes:(1) to support learning,(2) to execute accountability, and (3) to provide certification, progress, and transfer (Archer, 2017; Capsim, 2020). Formative and summative assessments in conjunction with appropriate feedback systems are used to support learning in higher education. This means employing assessment data in a diagnostic approach to determine competence, gaps, and progress; so learners may adapt their learning strategies and teachers their teaching strategies. In higher institution programmes, subjects have specific learning outcomes. These outcomes provide information on learning levels that students need to achieve targeted educational objectives (Al- Shammari, 2011). Hence, the objectives of assessment are directly linked with the achievement of the learning outcomes both by supporting the learning process and measuring the degree of learning.

However, higher education institutions have faced another additional challenge during the current unprecedented COVID-19 incident due to lack of preparation of institutions, teachers, and students. In the current study, the available options of remote assessment in higher education institutions are reviewed. The study also investigated the challenges faced by higher academic institutions in COVID-19 period considering a case study of Belhadj Bouchaib University. With a special focus on addressing the academic dishonesty in remote assessment, an investigation is carried out to determine and prioritize the appropriate assessment type for different subjects.

1.2 Types of remote assessment

Today, online learning is adopted in many higher institutions and assessing students remotely is being challenging, particularly in ensuring academic integrity. Educators are compelled to devise a strategy for an appropriate remote assessment method. A variety of remote assessments are available to evaluate students' online learning. These assessments are broadly classified as (1) remotely proctored tests and exams (time-constrained) and (2) open-ended assessments.

1.2.1 Proctored remote tests and exams

A proctored exam/test is any exam/test given when someone is watching learners. This kind of tests and exams are a time bounded and proctored, and commonly used in the classrooms. Proctored exams and tests can also be done remotely by using various learning management systems. However, remote proctored exams have several drawbacks and the major ones are mentioned below.

1. Remote proctored exams are often more stressful for students than in-person proctored exams which would affect the student's performance adversely.
2. Remote proctored exam requires well-established infrastructure setup, both on the instructor and student side.
3. In remote proctored exam, failure of internet connection could be experienced. Hence, contingency plan should be designed before the test/exam is started.
4. Due to personal or cultural reasons, students may not be willing to stay under the camera supervision.

1.2.2 Open-ended assessment

Open-ended questioning is a form of authentic assessment, and allows students to use higher-order thinking skills through a variety of content areas. Lower Order Thinking Skills typically only require rote knowledge and basic comprehension to answer. By their nature, open-ended questions assess writing, conceptual understanding, and thinking skills - especially students' abilities to analyze, evaluate, and solve problems.

1.3 Alternatives to proctored remote exams

Students' learning goals are an excellent place to start when alternative assessments are considered. The expectations from students when they complete the course, and the way they have to demonstrate their learning are the key factors to identify the assessment types.

As the objective of assessment is to evaluate the performance of students against the learning outcomes and promoting learning activities, certain assessment methods would be appropriate and less problematic to achieve the intended objectives in remote assessing. Hence, the following assessments can be applied based on the nature of the course and questions.

Series of quizzes: Quizzes of feralow-stakes opportunity for students to demonstrate their understanding on the materials provided. It also gives ongoing information about students' understanding and serves as a feedback for improvement.

Take-home assessments: These assessments are conventional and used under the traditional teaching-learning process also. However, when there is no possibility of proctored exam, take-home exam can serve as the main assessment method to cover the learning outcomes. To make sure that the assessment is done by the student, online oral presentation, and question can be included. The challenge of take-home-exam is preparing more conceptual questions that cannot be found directly and easily in any type of sources, such as the internet and text books.

Professional presentations: These assessments can be done in audio-visualandaregooddemonstrationofthestudents'understandingsespeciallywhenpresentation is conducted online. The presentation can be done using any web based online conferencing system, such as ZOOM, Google Meet, etc.

E-portfolio: E-portfolio is considered a learning and assessment tool. Students compile their best or representative work from the semester, writing a critical introduction to the portfolio and a brief introduction to each piece. Students' achievement can be evaluated collectively for a subject improvement. It can also be useful to organize, sample, and assess what students gained out of it. E-portfolios enable faculty not only to observe what students know and can do, but also to indicate how students learn through their reflections (Rutgers, 2020).

1.4 Quality criteria of assessment

In choosing the type of assessments, there should be certain quality criteria that ensure the assessment objectives are met. In this regard, the following criteria would be considered in the choice of the assessment:

-Validity

As assessment's main objective is to evaluate the students' learning on the specific learning outcome, the assessment method should be appropriate to evaluate the achievement of the learning objectives (Hsiao & Watering, 2020).

-Reliability

The most difficult issue in remote assessment is ensuring academic integrity. The assessment design should consider preventive measures to make assessment free from cheating and fraud. The preventive mechanisms during the assessment time and detecting mechanisms after submission should be employed (Hsiao & Watering, 2020).

-Clarity

During the assessment time, since there is no face-to-face communication and students may not have a chance to ask clarification, the assessment should be clear to students. Particularly when students are not familiar with the new assessment method, it is essential to explain the procedures and expectations clearly and provide related examples. This also applies if questions are asked at a different level than would normally be expected. Make sample questions, and if possible discuss these questions online with the students before issuing the assessment (Hsiao & Watering, 2020).

-Avoid susceptibility for technical problem

Commonly, in remote assessments, the instructor will not be in opposition to solve the student's problem. The problem could arise as a result of internet malfunction, or due to lack of knowhow on the supporting materials by the student. It is important to consider how to deal with these kinds of problems in advance (Hsiao & Watering, 2020).

2. Participants and Research Tools

To investigate the remote assessment challenges faced by the students of different streams, an online questionnaire was prepared and distributed to all faculties through Google Forms to 50 participants (40 students and 10 teachers), and 50 responses were collected. The questionnaire had three sections: section 1, general information; section 2, assessment method (assignment, project); and section 3, challenges of remote assessment.

3. Findings and Discussion

3.1 General information

At Belhadj Bouchaib University, like the rest of the Algerian universities, there are two types of subjects. (1) subjects with 100% coursework also called practical tutorials; (2) subjects that have 100% end semester exam and (3) subjects that have course work and end semester exam. As the nature of the assessment depends on the subject type, in the questionnaire, two main types of assessments were indicated for the respondents to choose. From the collected questionnaires, 36% of the subjects are coursework (tutorial) subjects and assessed in various coursework assessments, 25% are assessed during end semester exam, and the remaining 64% are assessed using both coursework assessments and end semester exam.

3.2 Assessment method

The participants were asked to select what type of assessment is appropriate for their respective subject when the assessment strategy is changed from the normal assessment method which was used previously in the normal time to the current remote assessment method. The options given were two types. The first one is question-based assessment which is expected to be completed in a short span of time (maximum 2h). The second type is an assignment-based or project-based assessment which can be completed and submitted in a long span of time (from 1 to 3 weeks). As shown in Figure 1, 68% of the respondents have preferred assignment project-based assessment type for their specific subject, and the remaining 32% have preferred question-based assessment. As the degree of challenge for question-based assessment would be less compared to assignment/project-based assessment, the assessment is expected to be completed in a short time, and if the infrastructure is available proctoring could also be considered during the assessment time.

Hence, in the questionnaire, one question was provided for the respondents to know their preference whether proctoring students remotely is required (Do you feel that proctoring students remotely is required?). As shown in Figure 2, 63 % of the respondents have preferred not to proctor students when they are writing the assessment and the remaining 37.5 % have preferred proctoring the students. Here, the reason why high percentage of respondents preferred not to proctor students when they are writing the assessment could be due to their concern on the inadequacy of the infrastructure to do the same.

For assignment/project-based assessment, various types of assignments or projects could be prepared and given to students. Assignment and project-based assessment were also considered separately since the assessment nature and evaluation method could have different features.

Figure 1: Assessment style

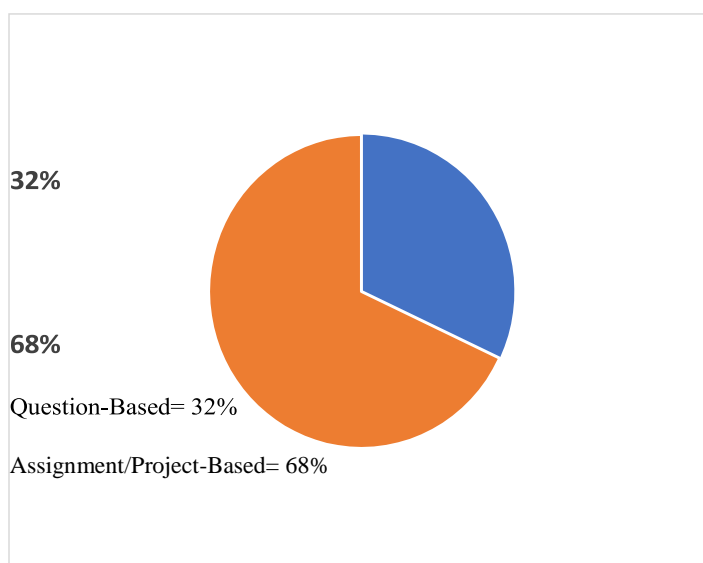
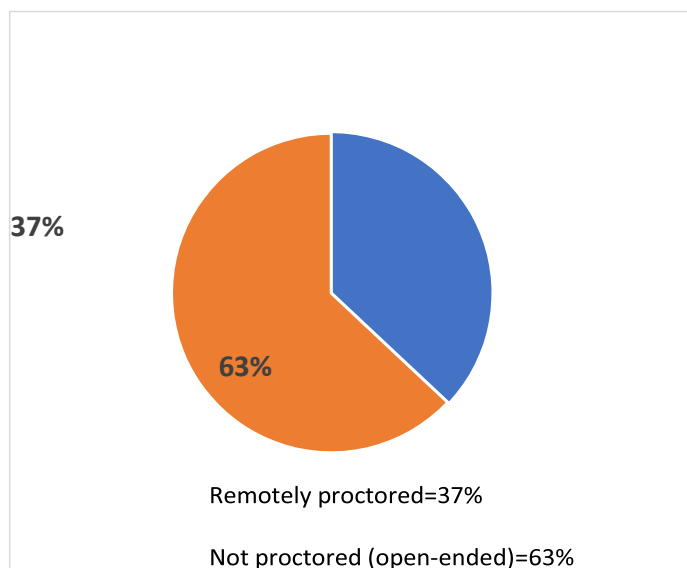
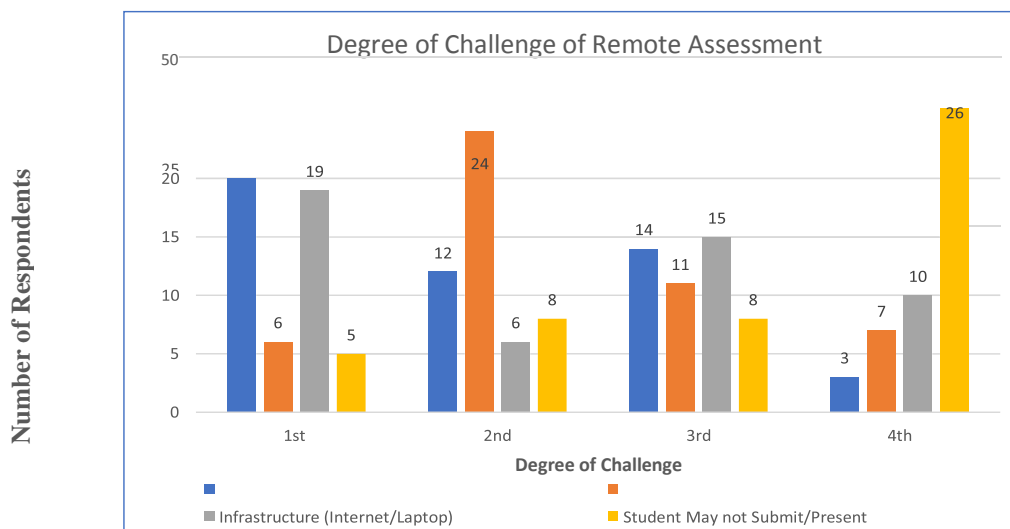


Figure 2: Proctoring the assessment

3.3 Challenges of remote assessment

Under the online assessment, four distinct types of challenges were provided to the respondents to prioritize based on the degree of the challenge. In addition, an open-ended question was included to the respondents to mention any other challenges, which are not listed in the questionnaire. As shown in Fig.3, respondents have prioritized the challenges from 1 to 4. Infrastructure problem and academic integrity violation were selected by 20 and 19 respondents as the 1st degree challenge, respectively. The infrastructure problem could be challenging particularly for subjects which require computer lab and high internet speed to carry out certain assessments.

The confidence on students' commitment to submit the assessment through the Moodle platform was also considered by 24 respondents as the 2nd degree challenge. To address this concern, the teachers implemented various student follow-up methods to encourage them to attend online classes and submit assessments. Achievement of the subject learning outcome was considered by the respondents as another challenge and 26 respondents have put as the 4th degree challenge, and only 5 respondents have selected it as the 1st degree challenge.

Figure3: Degree of challenges of remote assessment

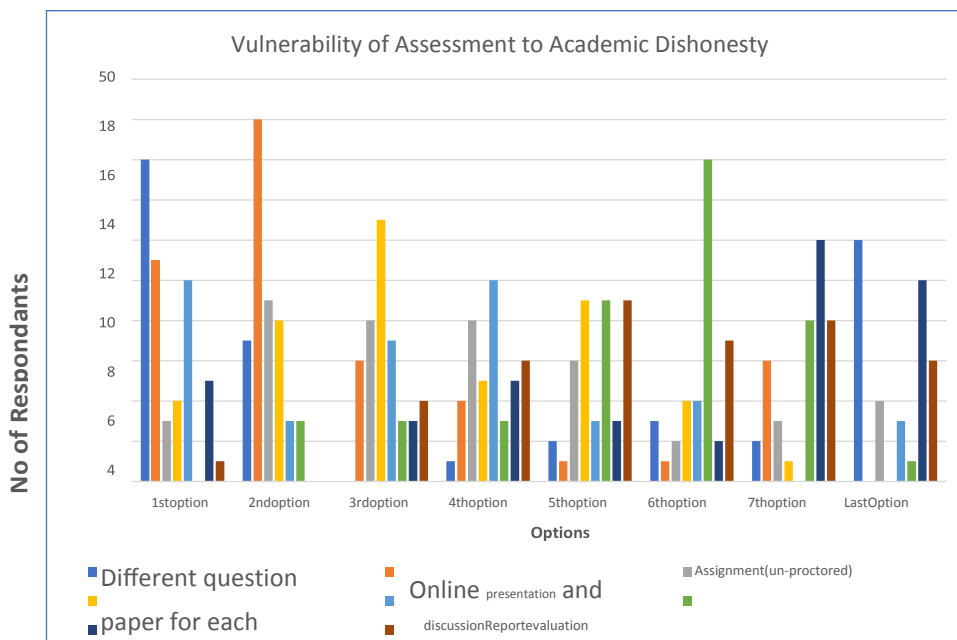
Since violation of academic integrity is one of the major concerns in remote assessment, in the questionnaire, six types of assessments were provided to the respondents to prioritize them in descending order in preventing academic integrity violation starting from 1st to last options. The assessment types presented to respondents were as follows:

- Different question paper for each student
- Online presentation and discussion
- Assignment (unproctored)
- Report evaluation
- Professional presentation
- E-portfolio

As shown in Fig.4, preparing different questions to each student were found to be the first and second option for 16 and 7 respondents, respectively, to minimize academic integrity violation. Online presentation also appeared to be good option by many respondents to control academic integrity violations. 18 respondents put online presentation and discussion as their second option and 11 as their 1st option. Professional presentation was also identified as one of the assessment methods that enable to control academic integrity violations. Thirteen and 8 respondents have put professional presentation as the 3rd and 2nd option, respectively. E-portfolio has appeared as the 7th and last option to 12 and 10 respondents, respectively,

to prevent academic dishonesty.

Figure 4: Vulnerability of assessment to academic dishonesty



4. Conclusions and Recommendations

This study has been conducted to assess the challenges of remote assessment in higher education institutions in COVID-19 period taking Belhadj Bouchaib University as a case study. An online questionnaire has been prepared and distributed through Google Forms and 50 responses have been collected.

As proctoring students remotely requires appropriate infrastructure, most respondents have preferred unproctored assignment/project-based assessment with higher level of challenge than proctored question-based assessment which can be completed relatively in a shorter time, maximum 2h. Depending on the subject nature, unproctored assignment/project-based assessments would have different submission types and evaluation methods. The options provided to respondents for submission and evaluation types were project report, professional presentation, annotated bibliography, factsheet, and E-portfolio. Among the

options project report submission and unproctored assignment were the most preferred assessments by the respondents.

For the questionnaire provided to evaluate the degree of challenges during COVID-19 time, most respondents have put infrastructure problem and academic dishonesty as the first challenge. Students' commitment to submit assessments has also appeared as a concern and put as the second challenge. The challenges related to infrastructure and commitment of students to attend online classes and submit assessments could be solved by the university in collaboration with the students and other stockholders in the future since both current challenges were created unprecedentedly due to COVID-19.

However, academic dishonesty problem is not a tentative and COVID-19-related problem needs further investigation. Hence, the assessment type used for unproctored assessment was taken as one prevention method, and the respondents were asked to identify the appropriate assessment method. As a result, 16 and 7 respondents were put preparing different question for each student as their first choice and second choice to prevent academic dishonesty. This approach could be practical if the number of students in one classroom is relatively small in number and the faculties are able to manage it in preparation of the question and assess the answer scripts within the period of the semester.

The other option that appeared to be good for prevention of academic dishonesty has been online presentation. Using combined evaluation methods for an assessment could be more appropriate to address the learning outcomes of the subject and at the same time minimize the risk of academic dishonesty. The effect of academic dishonesty is not only limited within the unfair distribution of marks to students but also it adversely affects the teaching-learning process. Students who are striving to acquire knowledge and expect the reward accordingly to their effort will be demotivated and the quality of learning will drop. In addition to various controlling methods used during assessment time, higher education institutions have to create awareness among students on academic integrity issues and develop the ethics of students through the learning process by incorporating them in the curricular plans.

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