Students' Perception of Online Assessment During the COVID-19 Pandemic: The Case of Undergraduate Students in the UAE

Dr. Elham T. Hussain
English Language & Translation
Al Ain University
Abu Dhabi, UAE
elhamrambadwi@yahoo.com

Dr. Sumya Daoud
English Language & Translation
Al Ain University
Al Ain, UAE
sumaya.daoud@aau.ac.ae

Dr. Hussam Alrabaiah

College of Engineering
Al Ain University, Al Ain, UAE

Department of Mathematics, Tafila Technical
University, Jordan
Hussam.alrabaiah@aau.ac.ae

Amjad K. Owais
English Language & Translation
Al Ain University
Abu Dhabi, UAE
amjad.owais@aau.ac.ae

Abstract—The purpose of this study was to investigate students' perceptions towards online assessment during the first wave of the COVID-19 pandemic. A sample of students (n=302) participated in the study which took place during the second semester of the academic year 2019/2020. The study adopted a mix of quantitative and qualitative methods and consisted of a Likert scale survey questions and a free writing reflection question. Statistical analysis revealed that there is an inverse correlation between the students' GPAs, on the one hand, and their level of satisfaction with online assessment and the pass/fail option, on the other. That is to say, students with higher GPAs were less satisfied with online testing and the pass/fail option. In addition, students' responses to the open ending question provided educators with a number of suggestions for improvement such as implementing online oral exams and on-campus testing. The implications of the study are significant for maintaining accurate and fair assessment solutions during the current and any potential future crises.

COVID-19 pandemic, an increasing number of these institutions decided to backtrack their earlier decision to re-open and to deliver the fall courses online instead¹. According to UNESCO, as of early September 2020, over eight hundred million students constituting 47.2 percent of total enrolled learners in forty six countries are still affected by school closures². Under normal circumstances, an online university course requires six to nine months of preparation, planning and development [1]. However, due to great pressure and time constraints during these times of uncertainty, it is likely that the quality of mass online education especially in relation to the three most important components of the educational process, that is, curriculum, instruction, and assessment, would be of great concern to all stakeholders. Paradoxically, while in the minds of students and their families, assessment is typically the most prominent of these three cornerstones [2], it is often the most problematic, the least attended to and the least understood. The abrupt and massive transition from face-to-face to online education in the context of COVID-19 exasperated the problem even further since many faculty members who had never taught online prior to this crisis received little or no training on how online assessment should differ from the way students are assessed in face-to-face

I. INTRODUCTION

The fall semester of 2020 has already begun for some tertiary educational institutions across the globe and is soon to start for many others. With the persistence of

¹ https://www.insidehighered.com/news/2020/08/12/collegeswalk-back-fall-reopening-plans-and-opt-online-only-instruction

² https://en.unesco.org/covid19/educationresponse

environments [3]. The result of this lack of experience and training has sometimes resulted in unfair grades and/or serious compromises to academic integrity.

Assessment in education addresses the following simple question: Have students learned what the instructor/the course intended for them to learn? For many students, however, the most important component of assessment is the grade, which-- whether instructors like it or not-- often outweighs the importance of the knowledge they acquire [4]. Additionally, fairness is extremely important to students when it comes to grading since proper and fair assessment allows them to thrive because they know what to expect and they understand their targets [2].

Assessment in online courses has challenges and opportunities. The challenges include the need to verify the identity of the individual completing the coursework and taking exams. This is typically done through remote proctoring tools and technologies. These tools have two functions: they lock the students' devices, and they videotape students while taking exams. However, remote monitoring has at least two serious drawbacks: first, it is often time consuming, and second, while such tools help suppress the cheating problem, they raise legitimate concerns over possible ethical issues such as unwarranted intrusion into the lives of individuals [5]. Another challenge is that online instructors must get used to providing timely and constructive feedback to students. The opportunities, on the other hand, include using discussion as an assessment tool which helps keep students focused and, therefore, increase their interest in the course. In addition, online assessment sometimes allows students the opportunity to do their work when it suits them and provides those who find it difficult to vocalize their ideas aloud the convenience of writing their contribution in the chat box [2].

II. LITERATURE REVIEW

Though the crisis caused by COVID-19 is only a few months old, several articles, studies, surveys, reports, guidelines and blogs have already been published to address pressing issues related to the impact of the pandemic on various aspects of the educational process. A detailed report by the United Nations warns that unless urgent actions are taken by all governments and stakeholders, the learning crisis caused by COVID-19 could become "a generational catastrophe." According to the report, a country's low level of development and economy could exasperate disparities in learning opportunities. In addition, girls,

students with disabilities, refugees and the forcibly displaced, and students with poor digital skills and the least access to the hardware and connectivity required for distance learning solutions are the most severely impacted by the crisis.

COVID-19 has also forced policy makers and stakeholders across the globe to quickly review and modify educational policies including those pertaining to assessment and grading. Rossiter, Ali and Moscovis [6] address the question of high-stake exams during the pandemic and argue that the crisis must open up discussions around the fairness of these exams even beyond the current context. According to the researchers, high-stake exams need to be reconsidered because they "reinforce income inequality, create perverse incentives in the classroom, and limit the number of students who could benefit from more education." Hares and Moscovis [7] agree that while it is almost impossible to grade students in an objectively fair manner during the pandemic, the problem is not unique to the current situation. The researchers tracked the approaches of more than 100 countries to national exams and found that these exams were either cancelled and not rearranged for the current year, administered online, rescheduled for later times during 2020, *postponed* without announcing new dates, substituted exams with results allocated by teachers or prior assessment or went ahead were exams have taken place as planned. The fact that postpone was the most popular option—about 40 percent of countries—clearly reveals the unpreparedness of countries around the globe to efficiently handle exams during the crisis.

Cumming, Miller, Bergeron & deBoer Cumming et al [8] is primarily concerned with the way students are assessed as the shift to online education abruptly took place. The authors argue that switching from letter grades to a pass/fail system has its pros and cons. On the one hand, it may help retain students, reduce their anxiety, enable them to fulfill their academic obligations and allow them more time to deal with other relevant and important issues without negatively impacting their GPAs. On the other hand, the pass/fail system will complicate admission and hiring decisions as it will become harder to discriminate between the students' different academic achievement levels. In addition, the pass/fail system is likely to discourage students from exerting effort to excel since students with radical differences in effort and performance will receive the same grades.

Akimov and Malin [9] points out that while academic integrity and the associated issues of identity security, plagiarism, and unauthorized collaboration are serious concerns with all types of assessments, these problems are more prominent in the online setting because instructors do not physically see the students and because many characteristics of online technology enhance the opportunity and temptation for dishonest behavior. The study illustrates how online oral examination proves to be a high quality assessment tool which performs against the important criteria for good online assessment, that is, validity, reliability and fairness.

Although there is not enough data on the issue of students' academic integrity in the context of COVID-19, there are indications that academic file sharing and academic outsourcing, or contract cheating, may have increased during the shift to emergency remote learning [10]. Possible reasons for this increase include stress, lenient punishment measures, absence of necessary practices and techniques necessary for conducting assessments in an online environment (most likely due to instructors' inadequate training). Numerous reputable academic institutions have already raised concerns over this issue. Boston University, for example, is investigating the possibility that some undergraduate students took advantage of online testing during the pandemic to cheat³.

III. RESEARCH QUESTIONS

The present study aims to contribute to the growing research conducted on online assessment during the COVID- 19 crisis. Specifically, the study seeks to answer the following questions:

RQ1: Is there a relationship between students' level of satisfaction towards the way they were assessed and their GPAs?

RQ2: Is there a relationship between students' approval of the pass/fail option fair and their GPAs?

RQ3: What suggestions do students have for improving the online assessment process?

IV. CONTEXT AND METHODOLOGY

Like the rest of the world, the UAE has been coping with the repercussions of the COVID-19 pandemic on all aspects of life since early March, and education has not escaped the storm. By mid-March, 2020 faceto-face teaching in the country was halted at all educational institutions, and online learning was adopted instead. Therefore, new policies and measures were geared towards providing training and equipment to make the new mode as successful as possible across the country. Although some educational institutions had already introduced online learning in some way prior to the pandemic, the atscale shift triggered by the pandemic has imposed a new teaching/learning atmosphere that created merits and challenges different from those which existed earlier. Online learning has been positively perceived by faculty and students for its convenience during the pandemic crisis; yet, it was criticized for its inferiority to face-to-face learning in terms of the quality of education it offers [1]. This dilemma gave rise to controversy over the efficiency of the mass and abrupt online mode, especially when it comes to academic integrity and fair assessment [6], [7]. To ensure that academic integrity and fair assessment are maintained as best as possible during these difficult times, educational institutions incorporated software programs such as proctoring audiovisual systems, plagiarism detection programs, and video conferencing platforms.

At Al Ain University, where the current study took place, several software programs have been used to guarantee the highest possible efficiency of the testing system. For example, Respondus Lockdown Browser is used for audiovisual monitoring during tests, Turnitin for plagiarism detection, Moodle for tests and MS Teams for oral exams. Besides, orientation sessions were conducted to students and faculty members to familiarize them with the new mode of learning/teaching and assessment.

The current study was conducted during the second semester of the academic year 2019-20. Participants (n= 305) who were enrolled in English Communication Skills courses were asked to respond to a three-part survey related to their online assessment experience during the COVID- 19 crisis. The first part asked for some demographic

³http://www.bu.edu/articles/2020/coronavirus-update-05-01-2020/

information (gender, year of study and GPA); the second had eight questions and asked students to rate their experience with online assessment using a 5-point Likert scale; and the third had a single question about students' suggestions and comments on ways to improve the assessment process in online courses. Thus, the current study adopts primarily a quantitative approach with some reference to qualitative data. Descriptive and inferential statistical analyses were carried out to identify correlations between the variables in order to find answers to the research questions.

V. RESULTS

In order to answer the first research question, correlational analyses between the independent variable (the students' GPA) and the dependent variable (the students' level of satisfaction with online assessment) were used. Results indicate an inverse relationship between the students' GPA's and their level of satisfaction with online assessment with Pearson Coefficient r = 0.86 with p < 0.001. See table [1] and Figure (1) below.

TABLE I. Correlation between GPA and level of satisfaction with online assessment

| | | GPA | SATISFAC TION |
|---------------|------------------------|-------|------------------|
| GPA | Pearson Correlation | 1 | 748** |
| | Sig. (2-tailed) | | .000 |
| | N | 305 | 305 |
| STATISFACTION | Pearson Correlation | 748** | 1 |
| | -Sig. (2-tailed) | .000 | - |
| | N | 305 | 305 |

^{**.} Correlation is significant at the 0.01 level (2-tailed).

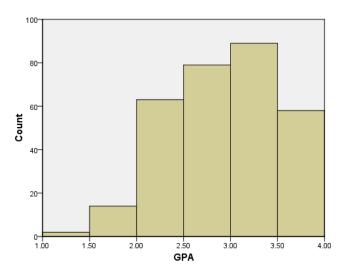


Fig. 1. Correlation between GPA and level of satisfaction with online assessment

To answer the second research question whether there any relationship between the students' GPA and their level of approval of the grading pass/fail option, correlational analyses were used to examine the relationship between respondents' GPAs and how strongly they believed the pass/fail option was fair. A sample of 305 students was surveyed. Results indicate an inverse relationship between respondents' GPAs and their attitude with Pearson Coefficient r=0.75 with p<0.001. See table [2] below.

TABLE II. Correlation between GPA and level of approval of pass/fail option

| | | | PASS/FAIL WAS FAIR |
|-----------------------|---------------------|-------------------------|-----------------------|
| GPA | Pearson Correlation | 1 | 558** |
| | Sig. (2-tailed) | | .000 |
| | N | 305 | 305 |
| PASS/FAIL WAS FAIR | Pearson Correlation | - .558 ^{**} | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 305 | 305 |

^{**.} Correlation is significant at the 0.01 level (2-tailed).

The third research question attempts to elicit suggestions and solutions if any are needed to better improve the assessment process during the pandemic. To give the participants the chance to freely express their ideas and thoughts on ways to improve online assessment, the following question was included in the survey: "What suggestions do you have for improving online assessment?" About one third of participants (n=107) responded to this question. The responses were classified thematically into four categories. Table [3] shows a summary of the most frequent suggestions and their frequency of occurrence.

TABLE III. Students' suggestions for improving assessment during the pandemic

| | Suggestion | Frequency |
|---|------------------------------------------------------------------------------------------|-----------|
| 1 | Students should be made to take exams on campus even if course is delivered online | 17 |
| 2 | The grade assigned for participation should be increased | 13 |
| 3 | More weight in the total score should be given to oral exams | 9 |
| 4 | Instructors should give many surprise/short quizzes | 9 |

VI. DISCUSSION

The statistical results above suggest that students with higher GPAs were less satisfied with the both online assessment and the pass/fail option. This finding is in line with some of the students' responses to the open ending question of the survey. High achieving students indicated that online testing softens the competition by giving the chance to excellent students and less competent ones to get similar grades.

In general, students' responses to the open ending question indicate that they have serious concerns about the way they were assessed. Despite the fact that students were only allowed to take exams through Respondus LockDown Browser,

The second and third suggestions could be combined as they show the students' desire for oral exams and participation, which is typically oral as well, to carry more weight in the total grade. This is in line with Akimov and Malin [9] who argue that online oral examination is a high quality online assessment tool as it ensures validity, reliability and fairness. It is possible to infer that these suggestions are indicative of students' uncertainty and mistrust of the validity and reliability of online written online exams

The fourth suggestion, on the one hand, reflects students' anxiety about assessments and grades, particularly during abnormal times, and reveals their concern about being assessed fairly, on the other. It is probable that such a suggestion was made by committed and serious students who attend classes and work hard throughout the semester. Therefore, they wish to be distinguished from others who take the course less seriously.

VII. CONCLUSION AND RECOMMENDATIONS

Due to the high value ascribed to assessment by students and professors alike, it is necessary to take into account the perspective of all those involved in this process. The present study sheds light on this process from the students' point of view during a time of crisis. Evidently, high achieving students felt at a disadvantage with online assessment. Their concerns, which are primarily related to fairness and accuracy, are, at least partially, legitimate and justified. In general, tests can have measurement error, and such an issue may even worsen with online testing. Therefore, students' concerns should be seriously addressed while developing online assessment tools. Collaborative work between IT experts, educators, testing experts and policy makers

described as "the 'gold standard' for securing online exams in classrooms or proctored environments, 4" some participants still suggested that exams should take place on campus. Eleven of these students explicitly pointed out issues related to cheating, though without providing any proof to support their claim. Three other students cited being nervous and uncomfortable taking exams while the camera is turned on, and the last two did not provide reasons for their suggestion. A possible reason for students' preference for taking exams on campus is the fact that most students were new to the concept of online assessment, and are, therefore, unsure about it.

⁴https://elearning.uni.edu/lockdown-browser-monitor

should be devoted to enhancing the quality of online assessment.

In light of the above discussion, the researchers stress the need for academic institutions to:

• Ensure that a reliable remote proctoring system is in place.

REFERENCES

- [1] Hodges, C.Stephanie Moore, Barb Lockee, "Torrey Trust and Aaron Bond, *The Difference Between Emergency Remote Teaching and Online Learning*" https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning, 2020.
- [2] Martin, J. Grading And Assessing Online Student Work Core Concepts and Key Strategies you can Use Today. 2020.
- [3] Eaton, S. E. Academic Integrity During COVID-19: Reflections from the University of Calgary International Studies in Educational Administration https://drsaraheaton.files.wordpress.com/2020/07/eaton-isea-2020-481.pdf. 2020.
- [4] Farias, G. Christine M. Farias & Kent D. Fairfield, Teacher as Judge or Partner: The Dilemma of Grades Versus Learning, Journal of Education for Business, 85:6, 336-342, DOI: 10.1080/08832321003604961, 2010.
- [5] Kitahara, R.T., Westfall, F. Promoting academic integrity in online distance learning courses. Journal of Online Learning and Teaching, 3(3). Retrieved from http://jolt.merlot.org/vol3no3/kitahara.htm, 2007.
- [6] Rossiter, Ali and Moscovis, A Case for Abolishing High-stakes Exams-This Year and Every Year. Available athttps://www.cgdev.org/blog/case-abolishing-high-stakes-exams-year-and-every-year, 2020.
- [7] Harrison, Online Education and Authentic Assessment https://www.insidehighered.com/advice/2020/04/29/how-discourage-student-cheating-online-exams-opinion, 2020
- [8] Cumming, T., Miller, M. D., Bergeron, J., & deBoer, F., Ensuring fairness in unprecedented times: Grading our nation's students. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA), 2020.
- [9] Akimov, A., & Malin, M. When old becomes new: a case study of oral examination as an online assessment tool. Assessment & Evaluation in Higher Education, 1–17. doi:10.1080/02602938.2020.1730301, 2020.
- [10] White, A. Amanda White, on Education for and Detection of Contract Cheating in Virus Times. Campus Morning Mail (retrieved from https://campusmorningmail.com.au/news/education-forand-

detection-of-contract-cheating-in-the-age-of-covid-19/), 2020.

- Train instructors on various forms of online assessments.
- Direct instructors to use a variety of assessment methods ranging from informal assessments to traditional tests.
- Educate students on the importance of academic integrity