Quality Assurance: Perspectives on Readiness, Trust, Cheating and Plagiarism in E-assessment

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Abstract –Quality Assurance in open-distance learning (ODL) has always become a global concern and a major importance for higher education. The provision of quality higher education using technology is a major challenge to address by open universities (OUs) and ODL institutions. While most of the students are ready and willing to accept e-assessment practices; on the other hand, results show concern about trust, cheating and plagiarism practices in e-assessments that need to be addressed and overcome professionally. Thus, this study aims to comprehend students' perspectives on the readiness, trust, cheating and plagiarism in e-assessment based on their experiences. A quantitative method was used, and data was collected from 191 participants using Google-form applications. They were then analysed to draw conclusions and possible recommendations.

Keywords – Quality Assurance, E-assessment, E-learning, Trust-Cheating-Plagiarism.

I. INTRODUCTION

COVID-19 was firstly identified from the Wuhan market, China on 7 January 2020 and later it spread rapidly to 109 countries (Dharmendra et.al., 2020; Muhammad et.al., 2020). After 15 months now the word "COVID-19" and "Corona-virus or 2019-nCoV" are beginning to liquidize in our daily vocabularies and conversations. 'Facemasks' too are becoming a compulsory accessory and a new best friend. We begin to digest and accept that this is the new-norm, and we need to adapt and move on with our daily lives the best possible way. When Malaysia decided to start the 2020 Movement Control Order (MCO) or in Malay known as "*Perintah Kawalan Pergerakan*" (PKP) on 18 March 2020, it served as a preventive measure by the federal government of Malaysia in response to the COVID-19 pandemic in the country (Bunyan, 2020). However, it inevitably has affected the Educational Institutions in terms of the administration and the dissemination of knowledge to students and instructors. This drastic global lockdown has somehow forced everyone to follow new-norms, leaving us with no choice but to accept and implement e-learning (EL), online teaching (OT) and ODL. Students' and instructors both play important roles in ensuring the success of EL experiences via optimum level of motivational interactions and discussions (Bibiana et.al., 2008). There are worries not only about the quality of students academically during this pandemic but also socially (Noor Aina et.al., 2021) and mentally (Rafizah et.al., 2021), where studies have shown that ODL sessions could give rise to unfavorable effects on social interactions such as feeling isolated, being lazy, feeling lonely as well as undergoing stress and depression. Furthermore, can online assessments be of equal quality with offline exams? Nizam et.al. (2020) established an intellectual design in which we can control the average gain (which is referred to as the g-factor) from cheating behaviors to a degree as small as pre-specified so that accurate and reliable online exams can be administered.

Accepting the fact that cheating and plagiarism in assessments in higher education is not a recent phenomenon, a series of other questions have been raised (Meller et. al., 2018). In one of the studies conducted by Lee-Post and Hapke (2017) in which they administered a survey to online undergraduate students, it was found that 30% admitted that if given the opportunity, they would cheat especially during an online class. Another study by Serpil et.al. (2018), supports that there is a significant difference in students' perceptions towards the practice of cheating and plagiarism and their trusts towards e-assessment.

Could everyone accept this new way of learning? What are the challenges students, lecturers and administrators must deal with? How do we access laboratories and fieldworks? More importantly, how do we assess and evaluate the students knowing that the risk of cheating and plagiarism is high especially when they cannot be monitored in person or face-to-face (Choong, 2020; Nor Hanim, 2020). What actions should all educational institutions take to modernize their approach towards exams and assessments to well-suit this new norm of OT, learning and assessing? Can we trust the students on their individual assessments? Will they cheat on their online exams or plagiarize based on their friends' work?

How do we define 'trust' or 'cheating' in this new situation of ODL? Do all students know the distinction between discussing and cheating or citing and plagiarizing? Will they intentionally open their book, even though it is clearly stated that it is a closed book assessment? How trustworthy will they be in front of the screens?

Due to all these lingering questions, this study aims to investigate the acceptance of online assessments among distance learners and hopes it will provide a better understanding of the problems to overcome it. This study also attempts to comprehend the readiness and the need to create an optimal teaching and learning environment for all parties: the academicians, the learners, and the administrators. Thus, it is important to look at the students' perspectives on their readiness, trust and the cheating and plagiarism practice in e-assessment based on their experiences during this COVID-19 pandemic.

So, let us define online assessment. In simple terms, "an online assessment may be defined as an evaluation of a person's abilities, behaviors and/or characteristics. This test is conducted over the Internet by using available web technologies and an online assessment or e-assessment that is set with clear objectives and instructions. Cheating in the context of e-assessments can be broadly defined as "all deceptive or unauthorized actions" (Bartley, 2005), while plagiarism is described as the "reproduction and presentation of others' work, without acknowledgement, or the attempt to receive credit for the idea or words of others" (Bartley, 2005).

II. METHODOLOGY

A. Participants and Data Collections Integrity

Questionnaires were designed using Google form and the data was collected by randomly distributing mainly to university students in Universiti Teknologi Mara with various faculties and backgrounds. Email, WhatsApp, and Telegram chat groups were used as mediums of distribution. Within the period of almost five months from 1 October 2020 to 28 February 2021, 191 responses were collected. The data was analysed using the Excel-Pivot Table Adds-in for comparative studies.

B. Research Questions

The first section (Q1-Q5) of the survey was related to personal and demographic information. The second section (Q6-Q12) was on internet accessibility and ODL related questions. The third section consists of eight questions on comparative study on students' behaviours and attitudes towards EL/ODLT. While the fourth section consists of five research questions, to gather information related to trust, cheating and plagiarism. Data for the first three research questions were collected using the five-point Likert scale ('Strongly disagree 1' to 'Strongly agree 5') whereas the remaining were closed questions with three options (Yes/No/Maybe).

Table 1: Demographics, Internet and ODL Info: (Q1 to Q12).

Q	Details
1	What is your gender? (male/female)
2	Please pick your age range.
3	Please tick one, which describes you.
4	Where do you live? (ie. Pick a State)
5	Your residential area is considered as ... (urban/suburban/rural)
6	Which Mathematics/Statistics course are you taking this semester? (Note: Only apply to UiTM Students, if you are not, then just choose 'Not relevant')
7	Do you have limited/unlimited data for your internet? (*just choose ONE)
8	How fast is your internet? *Choose ONE only.
9	Which do you prefer most? Having your classes in Face-to-face Mode Learning, Open-Distance Learning, or Blended-Learning?
10	Choose which method/s suit you best for your eLearning/Open Distance Learning (ODL)? *can choose more than one method
11	How do you prefer to sit for your Assessment 4 (Final Examination)?
12	Given a scale from 1 to 5, please give your level of satisfaction of ODL done by your lecturers on the whole

This study also aims to identify students' perception towards cheating and plagiarism and trust in e-assessments according to their experiences. It also focuses on the mode of learning involved, as well as exploring their concerns in e-assessment. Thus, we adapt the same five questions done by Serpil et.al. (2018) and the questions are as follows (Table 2):

Table 2: Research Questions of trust, cheating and plagiarism (RQ1 to RQ5).

RQ	details
1	Is there a significant difference in students' perceptions towards cheating and plagiarism in e-assessment regarding students' e-assessment experience?
2	Is there a significant difference in students' feeling of trust in e-assessment regarding students' e-assessment experience?
3	Is there a significant difference in students' perceptions towards cheating and plagiarism in e-assessment regarding the mode of learning they are involved in?
4	Is there a significant difference in students' feeling of trust in e-assessment regarding the mode of learning they are involved in?
5	Do the students have any concerns that there might be an increase in cheating and plagiarism if the face-to-face forms of assessment were to switch to online assessments at their university?

III. FINDINGS AND RESULTS ANALYSIS

A. Demographics & Internet Accessibility

Table 1 (Q1-Q12) aims to collect information related to internet accessibility as well as the personal and demographic information of the respondents. Based on the data collected, it shows that the ratio of male over female respondents to the survey is 54.5%: 45.5% and majority of the respondents are undergraduate students comprising 75.4% of the total responses from all over Malaysia.

Table 3 describes the selected responses based on the questions in Table 1. Data shows that the majority of students preferred Blended learning, which represents 53.4% out of 191 students and have unlimited and fast-to-medium internet data. Moreover, over 90% felt that the ODL practiced by their institutions fulfils their expectations.

Table 3: Selected Responses from Q1 to Q12

Item	Total Sample		Item	Total Sample	
	N	%		N	%
			Gender:		
			Male	87	45.5
Data Plan Limits:			Female	104	**54.5**
Unlimited data	104	**54.4**			
Limited data	84	44.0	**Age:**		
			Below 22 years	130	**68.1**
Internet Speed:			23 – 30 years	51	26.7
Fast	40	20.9	31 – 40 years	5	2.6
Medium	127	**66.5**	41 – 50 years	5	2.6
Slow	23	12.0			
No Internet available	1	0.6	**Levels of Study:**		
			Pre-diploma	7	3.7
Learning Style Preferable:			Undergraduate	144	**75.4**
Face-to-face classes	61	31.9	Postgraduate	40	20.9
Open-distance learning	28	14.7			
Blended-learning	102	**53.4**	**Residential Area:**		
			Urban	89	**46.6**
Satisfaction of ODL:			Suburban	58	**30.4**
Very Poor	5	2.6	Rural	44	23.0
Poor	13	6.8			
Fair	62	32.5			
Good	78	**40.8**			
Excellent	33	**17.3**			

B. Mode of Learning and Students' Readiness

Nowadays, there are multiple choices available as tools for EL and ODL purposes. Thus, students were asked to state their preferences. The result indicated that the majority of the students preferred Google Meet, Webex, iLearn-UFuture and You Tubes, respectively (Fig. 1).

Fig. 2. Students' Preference on Final Examination for eLearning or ODL

Based on Fig. 2, when students were asked about their preferences for their Final Examination or Assessment 4, 66% opted the conventional way or face-to-face approach. This is parallel to the results from Table 3 which shows their preferences on Blended learning.

In addition to the data above, Table 4 gives more in-depth information on students' readiness/acceptance towards EL or ODL. Based on the information gathered from Item-1, the majority (over 50%) of the students were anxious to complete their studies as quickly as possible, while less than 35% preferred otherwise. Referring to Items 2, 4 and 5, over 54% were very enthusiastic in engaging with technology in their EL. On the other hand, the overall percentage for the flexibility and confidence level in using the technology for Items 3, 6 and 7 were slightly below 50% for agree and strongly agree. Nevertheless, overall, 85% is still in the positive zone. Furthermore, more than 80% of the students agreed and strongly agreed that the use of videos work better in supporting them to revise and understand the study materials.

Fig.1. Students' Preferences tools for eLearning or ODL

Table 4: Comparative study on students' behaviours and attitudes towards eLearning/ ODL/ Teaching

Item (191 responses = N (%))	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am anxious in completing my degree/diploma/schools	2 (1)	7 (3.7)	56 (29.3)	**68 (35.6)**	**58 (30.4)**
2. I belief in my capability to interact with technology	1 (0.5)	10 (5.2)	66 (34.6)	**83 (43.5)**	**31 (16.2)**
3. I am cognitively engaged in doing the e-learning activities	5 (2.6)	15 (7.9)	78 (40.8)	72 (37.7)	21 (11.0)
4. I am willing to participate in any types of e-learning activities	5 (2.6)	14 (7.3)	6 (35.6)	**73 (38.2)**	**31 (16.2)**
5. I have the initiative and motivation to learn and use the system.	9 (4.7)	10 (5.2)	60 (31.4)	**80 (41.9)**	**32 (16.8)**
6. I have high level of self-confidence in using the system.	4 (2.1)	27 (14.1)	68 (35.6)	67 (35.1)	25 (13.1)
7. I am satisfied with time and place flexibility of the system.	15 (7.8)	16 (8.4)	68 (35.6)	72 (37.7)	20 (10.5)
8. I feel that a class with videos from the instructor works better for me than without videos from the instructor.	1 (0.5)	8 (4.2)	28 (14.7)	**74 (38.7)**	**80 (41.9)**

C. Students' Perspectives on Trust, Cheating and Plagiarism

In these sections, participants were asked the five research questions in Table 2 and the data collected is graphically described in Fig. 3 to Fig. 7 below. When asked about submitting similar and identical solutions, 83.3% understood that it is considered plagiarism; however, 40.8% were still unsure that to strongly disagree is alarming.
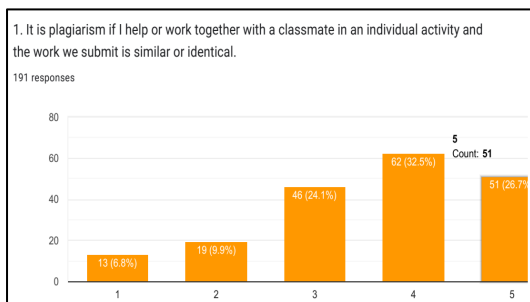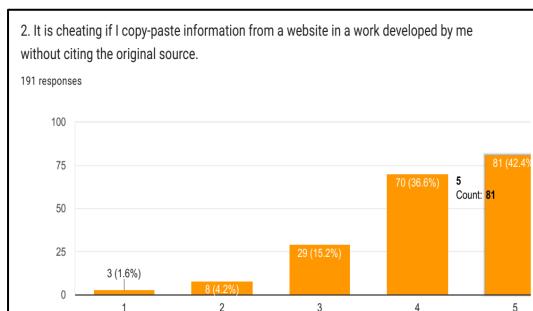

Fig. 3. Comparative analysis - RQ1

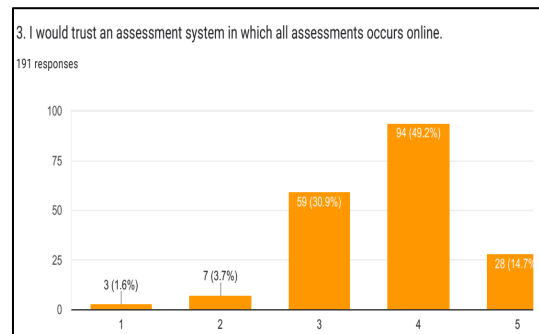Fig. 4. Comparative analysis - RQ2

Fig. 5. Comparative analysis - RQ3

On the other hand, as shown in Fig. 4, nearly 80% of the respondents agreed that copy-paste information from the website, without citing the original sources correctly, was considered cheating.

Based on Fig. 5, majority of the respondents i.e., 181 in total (~ 95%) quantitatively put their trust on the e-assessment practices. However, further qualitative analysis is needed to understand in greater depth.

For the last-two research questions, RQ4 and RQ5, answers were given in three choices either Yes (agree), No (disagree) and Maybe (unsure). Based on the pie-charts in Fig. 6(below) it shows that there is still possibility that cheating can still occur in which the data indicated that 16.8% believed that the practice of e-assessments will increase the act of cheating and plagiarism; while 12.6% felt that there are high possibilities that they will cheat or plagiarize.

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