

Research Papers/Extended Abstracts

Perception of students on online examinations: A case study of the Faculty of Fisheries and Marine Sciences & Technology in the University of Ruhuna, Sri Lanka

E. G. K. Y. C. Bandara*, R. D. N. Wijesinghe, & R. G. Sanuja

Department of Fisheries and Aquaculture, Faculty of Fisheries and Marine Sciences & Technology,

University of Ruhuna, Sri Lanka

*Corresponding Author: yogya@fish.ruh.ac.lk

Abstract

Since March 2020 up to date, smooth functioning of higher education systems in Sri Lanka is hindered by two main challenges; earlier by COVID-19 pandemic and later by the prevailing economic crisis of the country. Sudden closures of the universities lengthen the time required for undergraduates to complete their degrees, especially because of the inability to conduct examinations despite lectures and practical being completed within the allocated time. In such occasions, online examinations could be a better alternative. The present study is of utmost importance since its objective was to ascertain the students' perception of the Faculty of Fisheries and Marine Sciences & Technology on online examinations. A semi-structured questionnaire was given to the undergraduates of the faculty. Responses were summarized and analyzed using Microsoft Excel 16. According to the responses, majority of them (73.7%) seem to be of the opinion that conducting online examinations can be troublesome mainly due to issues related to networks, devices and power supplies, lack of prior experience, poor computer literacy and, disturbance at their houses. If there will be online examinations, most of the students (58.9%) will have mobile data connection followed by Wi-Fi hotspot (26.7%) and broadband (23.3%). Out of 236 respondents 28 students do not have any device to participate in online examinations while laptop and desktop computers are owned by 197 and 11 students respectively. As per the given responses 35.59% have average or below average computer literacy levels. The fact that only 77 students had earlier practice in online examinations seems to demoralize the students to participate in online examinations. It can be concluded that, if the faculty needs to conduct online examinations it should be done after conducting several practice sessions along with the provision of required facilities to all the students.

Keywords: *Computer literacy, Network issues, Online examinations, University of Ruhuna*

Introduction

At present, e-learning for teaching and learning is encouraged in Sri Lanka mainly due to COVID-19 pandemic and prevailing economic crisis of the country. Examinations, an integral component of teaching learning process are the mode of assessment to determine the knowledge of students, pensiveness, competence and skills (Sorensen, 2013). Technological development and digitalization facilitate the educational field via several approaches such as online teaching and online examinations (Adanır et al., 2020). Though Online examinations relief the stress and edginess of students, it leads to create academic misbehaviors that interfere with the fairness of the examinations (Tam, 2022). As online exams are being recognized as one of the effective assessment methods in higher education systems adhering to the prevailing situations, it is a necessity to ascertain the learners' perceptions since they are one of the key stakeholders in the assessment process. However, there is a dearth of studies exploring the learners' insights on online examinations. The purpose of this study was to investigate the students' perception on conducting online examinations to overcome the diverse issues and to explore the challenges and opportunities.

Methodology

A survey was conducted targeting 348 undergraduates of the Faculty of Fisheries and Marine Sciences & Technology, University of Ruhuna, Sri Lanka. A semi-structured questionnaire which includes both closed ended and open-ended questions was circulated as a Google form to obtain the information. The following aspects were the major focus of the prepared semi-structured questionnaire;

- Most preferred mode of examinations (online or physical)
- Reasons for their preference
- Devices available to assist online examination process
- Network connections to participate in online examinations
- Computer literacy
- Previous experience regarding online examinations

Retrieved data (from 236 respondents) were summarized and analyzed by using MS Excel and represented as percentages.

Results

The present study was conducted to get an insight on the perception of the undergraduates of the Faculty of Fisheries and Marine Sciences & Technology on online examinations. Out of the targeted 348 current student population, 236 (67.82%) undergraduates had given their responses where 86, 62, 46 and 42 students were from Level I, Level II, Level III, and Level IV respectively. Responses indicate that the majority of the students (73.73%) do not prefer online examinations whilst the rest (26.27%) do agree if the examinations are conducted online.

73.73% (174) of undergraduates, who think that conducting online examinations is not appropriate, had a diverse array of concerns related to online examinations. Issues related with network connections, power interruptions, lack of devices, lack of previous experience on online examinations, poor computer literacy, inability to conduct practical as online examinations, and disturbances at home were the major reasons given by the respondents followed by few minor reasons such as technical issues, additional stress incurred by online mode and difficulties caused by the electronic screen when exposed for a long time especially when the student is wearing spectacles. Interestingly two students have also considered the possibility of cheating when the examinations are conducted in online mode. Moreover, one student as a reason to reject the online examinations has highlighted the point that whoever studies the same subjects should be provided with equal facilities during the examinations, but if the examinations are conducted online, students will have different facilities (Table 1).

According to the majority of the responses, (33.14% out of 174) issues in the network connection is the main obstacle for them to participate in online examinations. Further inquiries regarding this matter assert that only 132 (55.9%) respondents have a stable network connection whereas the other 104 students have difficulties in finding a stable network connection. The majority of the students (58.9%) use mobile data followed by Wi-Fi- hotspots (26.7%) and broadband (23.3%). According to the responses given by the undergraduates, it seems that some of them use multiple network connections. Also, most of the students (71.2%) have 4G coverage whilst the second common coverage is 3G (21.2%). In addition, since the connections are not very stable there is an issue of having a continuous strong connection which shifts from 4G to Edge (E) ultimately affecting the students when they face the examinations online.

Table 1: Different Reasons Given by the Respondents Why they do not Prefer Online Examinations and Respondent Percentages of Each Reason

Reason	Student Percentage (%)
Issues with network connection	32.76
Network issues + power failures/ interruptions	13.79
Lack of devices	8.62
Power failures/ interruptions	7.90
Lack of previous experience on online examinations	6.32
Network issues + device issues	5.17
Disturbances at home	4.60
Lower computer literacy	4.02
Practical examinations cannot be conducted in online mode	2.87
Device failures	2.30
Other reasons	2.30
No reason given but do not prefer online examinations	9.77

Unavailability of required devices such as laptops and desktop computers to participate in the online examination as well as smart phones or cameras to participate in the proctoring process during online examination is another major cause which discourages students to participate in online examinations. Out of the 236 respondents, 11.9% (28) do not have any device to participate in online examinations whereas 88.1% (208) students have either a desktop computer or a laptop computer in which the most common device is the laptop computer (owned by 197 students) over the desktop computer (owned by only 11 students). Since proctoring is an integral process in online examinations focus has been given to the availability of smartphones or cameras to assist with the process. 210 students only have smartphones whilst only 02 students have cameras to assist with the proctoring process during the online examinations.

Another major problem was the poor computer literacy of the students. Responses indicate that 84 students are having an average or below average computer literacy. But it is an interesting fact that most of the students are quite confident about their computer literacy where they have responded that 12 of them are excellent, 39 of them are very good, 83 of them are good and 18 of them are above average. Furthermore, responses evince that ongoing power interruptions due to fuel shortage in the country is another major hindrance for conducting online examinations. Majority of the students (61.9%) have mentioned that if there will be a power interruption during an online examination, they won't be able to participate to the examination because power failures lead to loss of network connections, malfunctioning of the devices such as laptop computers, desktop computers and smartphones which are considered as essential components of online examinations.

In addition, lack of previous experience on online examinations is another limiting factor which demoralizes the students making them unconfident to participate in online examinations. Out of 236

respondents only 77 (32.6%) had earlier practice in online examinations where they have participated in a diverse array of examinations in which Multiple Choice Questions (MCQ) were the major component. 11 students had suggested to conduct rehearsal sessions prior to conduct proper online examinations so that, experience gain through these practice sessions will be a confident booster for the students.

Critical evaluation of the overall idea of students on online examinations suggests that most (160) of them believe online examinations will not be a good alternative to be conducted instead of conventional physical examinations. Inspiringly, 18 students seem to be of the opinion that online examination is a better solution to overcome the challenges incurred by the current situation of Sri Lanka in higher education. In contrast, seven students hold the view that conducting online examinations will be really difficult with the prevailing economic crisis and power failures in the country. 30 students think online examinations are good, while 17 other students are ready to participate in online examinations if the university or other responsible authorities could provide all the students with equal facilities required for online examinations. According to the respondents, if there will be an online examination, the most preferred mode of online examination is assignment-based evaluation followed by open book tests, MCQ questions, written exams, and presentations whilst viva-voce is the least preferred mode. Also, if there will be online examinations 37.3% of respondents think they will need more preparation time as well as 34.3% believe that more effort should be exerted during online examinations than conventional physical examinations. Students will need the same preparation time and the same effort in online examinations according to the view of 59.7% and 57.6% respondents respectively. Rest of the respondents think that less preparation time and less effort will be enough to complete online examinations.

Discussion

The present study was conducted as an initial survey prior to implement online examination systems for the undergraduates of the Faculty of Fisheries and Marine Sciences & Technology, University of Ruhuna. Online examinations have several positives over conventional examinations, mainly its ability to increase the frequency of assessments, mode of assessments and feedback (Özden, 2004).

In accordance with the findings of the present study, Vershitskaya et al. (2020) suggest that issues related with the devices such as smartphones, laptop and desktop computers and other smart devices and lack of technical assistance is a key obstacle in e-learning where e- assessment is also a component of e-learning. Some of the respondents had the problems that will be occurred due to continuous exposure to digital screens making them uncomfortable to participate in online examinations. Singh et al. (2021) have found that the longer duration of online classes increases the probability of having eye strain, neck and back pain, headache, anxiety and fatigue.

According to the findings of the present study following suggestions and recommendations can be made; (1) conducting several practice sessions prior to online examinations and get the feedbacks of the students, (2) university or other authorities should try their best to provide the students with required facilities to conduct online examinations and, (3) faculty should focus on developing new assessment strategies that will be easier to conduct online especially for the practical examinations.

As a future study it is recommended to develop an online examination system and get perception of the students on the systems so that developments can be made to the system depending on the responses given by the students.

Conclusion

According to the findings of the present study the following conclusions could be made; at the moment online examinations are less preferred by the undergraduates of the faculty where the majority of them want to participate in conventional physical examinations. Main reasons for their less preference towards online examinations are; issues related with network connections, devices and, continuous power supply, lower computer literacy, lack of prior experiences and lack of appropriate environments at their houses. Students believe that it will be okay to conduct online examinations with the provision of required facilities to every student along with the satisfactory practice on online examinations.

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