

FAVOURED INSTRUCTIONAL METHODS AND TEACHIING MATERIALS FOR ONLINE DISTANCE LEARNING (ODL) LECTURES ON INTERACTIVE MULTIMEDIA COURSE

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ABSTRACT

Computer subjects such as Interactive Multimedia is an important supplementary skill for higher education students in any field of study. Nevertheless, teaching and learning computer subject for non-computer background novice learners using online mode in the midst of COVID-19 pandemic is very challenging. Thus, this study was done to identify the technical issues and difficulties, favoured approaches for lectures, exercises and reference materials as well as preferred platform for lecture classes to be conducted using Online Distance Learning (ODL). This study was conducted at the Department of Computer and Mathematical Sciences, Universiti Teknologi MARA Cawangan Pulau Pinang. An online questionnaire via google form was created to collect data from 91 students. The findings will be used to enhance the online lectures teaching technique for CSC253 course in the upcoming semesters, increase students' understanding and interest in this subject along with improving students' grade.

Keywords: *online distance learning in COVID-19, online distance learning student readiness in COVID-19*

Introduction

Interactive Multimedia (CSC253) introduce the important topics in interactive multimedia application development which consist of fundamental concepts in multimedia, basic multimedia elements such as text, graphics, audio, video, and animation, requirements of multimedia project development, computer hardware and software, current multimedia authoring tools, file formats, media storage and memory management as well as applications of multimedia for the Internet. These topics will be covered in lecture classes while hands-on experience on software usage for graphic and video editing will be guided during the laboratory sessions.

Faculty of Computer and Mathematical Sciences (FSKM), Universiti Teknologi MARA (UiTM) offers the CSC253 course to all students in several programmes in UiTM as a

compulsory subject. This subject is non-prerequisite for the other courses offered at the third semester in the diploma level programme. CSC253 is conducted by lecture (theory) and practical lesson in the laboratory. This paper aims to discover the appropriate ODL delivery methods for lectures that are effective and favoured by the students. Through this study, the instructors of this subject are looking forward to improve their online teaching methods, boost students' interest and understanding as well as increase students' grade in the future semesters.

Literature Review

In the beginning of year 2020, COVID-19 pandemic outbreak in Malaysia has forced the Malaysian government to impose movement control order (MCO) for all Malaysian to stay at home in order to curb this virus from spreading fast. This pandemic has hampered various sectors and effect many other aspects of everyday life including the higher education. In Universiti Teknologi MARA (UiTM), the MCO has affected students who have just started a new semester in their fourth week, causing the university management requesting students to go back to their hometown and stay at home for their safety. However, all learning activities continued using Online Distance Learning (ODL) method.

According to (Allam et al., 2020) in their study, the term online distance learning is also known as e-learning, blended learning, online learning and virtual learning is learning activities that utilize Internet tools with limited or no physical social interaction with lecturers. They also added that ODL convey course content through teleconferencing, online chatting or forum, interactive video as well as recorded video and audio. Incidentally, in early 2020, UiTM had launched its Learning Management System (LMS) known as UFuture to replace the earlier i-Learn system. Nevertheless, since the use of UFuture was not compulsory so far, thus many lecturers have opted for a more user-friendly and free platforms such as Google Classroom, Microsoft Team and other social media such as WhatsApp, Telegram and YouTube as mentioned by (Chung et al., 2020) in their study.

Online learning is entirely technological devices and internet dependent. The dependency of online learning on technological equipment is a big challenge for institutions, faculty and students. As mentioned by a study by (Adedoyin & Soykan, 2020), most students that do not have access to high speed or reliable internet services or with outdated technological

devices especially for those who are living in rural as well as marginalized communities are struggling to meet up with some technical requirements of online learning. Moreover, (Allam et al., 2020) said that students who access the internet through smartphones are unable to take advantage of online learning because a significant amount of online content is not accessible or limited via smartphones.

Besides concern about technological devices and Internet access among students, student's anxiety to join the ODL activities must take into consideration. Before planning for ODL activities and choosing software platform for online classes, lecturers need to investigate about Internet access connection, students' technological devices, software literacy and their ability for self-directed learning. Furthermore, educators must also consider their students' motivation level to complete their study while facing interruption and difficulties at home as mentioned by (Allam et al., 2020). This is due to unconducive learning environment since all family members are staying at home with limited space to do revision and perform course assessments as well as technical hitches such as computer problem, limited Internet data and single device being shared by family members to perform their work.

Lack of proper interaction with instructors is another major concern stated by (Allam et al., 2020) associated with online learning. Online learning platform such as Microsoft Team Meet, Google meet, Zoom meeting and Cisco Webex require the student to have computer literacy on engaging camera and microphone device. The student must also capable to participate in online conversation, must be aware of online meeting ethics and must know how to access the lecture notes as well as download and upload assessments to conduct self-directed learning. The attention, motivation and proper guidance by frequently interaction spent by lecturers toward students was expected to increase students' readiness level. The initiative taken by the lecturer will indirectly boost their interest on the course taken, increase their performance and willingness to join the ODL session openly until the end of the semester.

Methodology

Ninety one students in the second year of Diploma in Tourism Management programme, Universiti Teknologi MARA Cawangan Pulau Pinang participated in this study towards the end of semester in 2021 after the Interactive Multimedia (CSC253) course was

taught through Online Distance Learning (ODL). A set of questionnaires were developed as an instrument of this study which comprises of 27 questions broken down into three main sections: (i) Section 1: Respondents' profile and basic information on CSC253 ODL, (ii) Section 2: Lecture Teaching Methods, and (iii) Section 3: Laboratory Teaching Methods. Section 1 gathered information on respondent's background, the gadget they used, the technical issue encountered (if any), the preferred platform for ODL and a few basic information on CSC253 lectures and labs. Section B collected students' opinion on favoured teaching approaches and tools for lecture classes, exercises and the lecture notes. Section C explored students' preference on instructional methods and exercises for learning software in Interactive Multimedia subject. However, this paper only focuses on the information obtained from Section 1 and 2 of the questionnaire. This questionnaire was created using google form and distributed through class WhatsApp groups to students taking the CSC253 course in the third semester of 2021 session.

Result and Discussion

Generally, about 95.4% of the respondents are staying at home during online distance learning are conducted throughout the semester. In this survey, 52% of students used smartphone, 47% of the students used their laptop, 1% are using desktop and 0.5% is using tablet for ODL classes. In Figure 1, from the feedback of 91 respondents on technical issues during ODL, 42.9% of students experiencing slow internet connection, 27.5% are having coverage problem while 20.6% are having not enough mobile data. Only 9% of the students are not facing any technical issue during ODL.

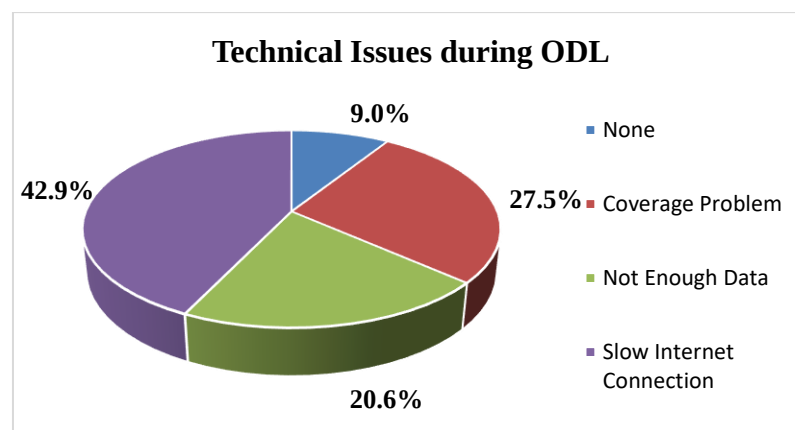


Figure 1: Technical Issues during Online Distance Learning (ODL)

Figure 2 shows the ODL platform preferred by students. From the online survey conducted, 29.0% of students favoured google classroom (GC), 26.6% preferred WhatsApp, 17.5% chosen Microsoft Team, 14.8% selected UFUTURE UiTM and the remaining 12.1% preferred Telegram.

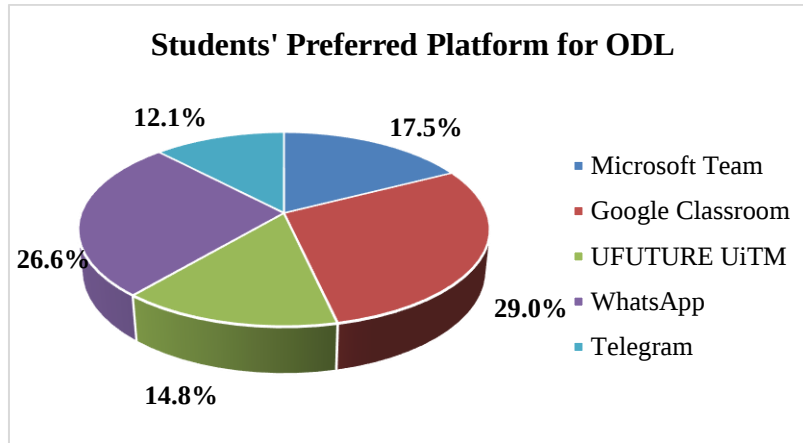


Figure 2: Students' Preferred Platform for Online Distance Learning (ODL)

On the favoured methods for CSC253 lecture classes as shown in Figure 3, 40.6% of students choose lecture slides to be distributed on learning platform such as Microsoft Team, Google Classroom or UFUTURE UiTM. 35.4% of responded that they preferred live lecturer classes by the lecturer whereas 23.1% favoured watching interactive video through learning platform. The least favourite lecture method chosen by students are viewing pre-recorded lecture video at Google Classroom.

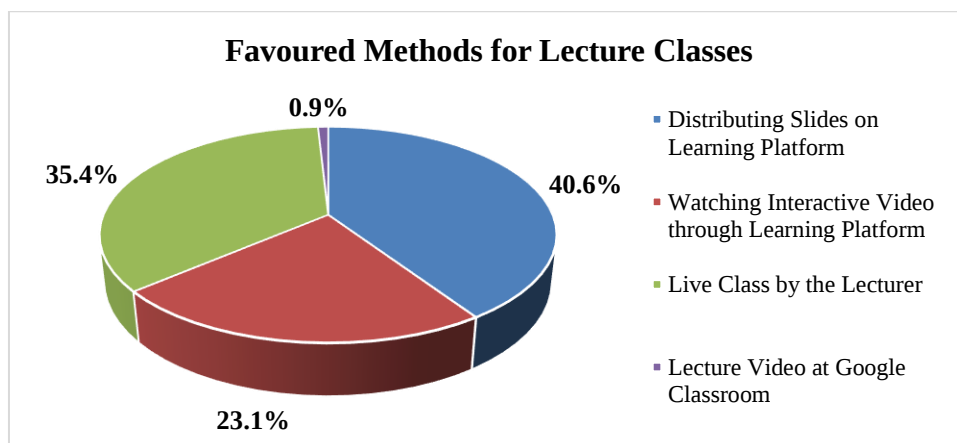


Figure 3: Favoured Learning Methods for Lecture Classes

We try to find out whether students like their lecture notes to be distributed using other application such as WhatsApp or Telegram. Figure 4 shows that 41.3% agreed to have their

lecture notes distributed using WhatsApp or Telegram while 17.4% of students disagreed to this reference material distribution medium.

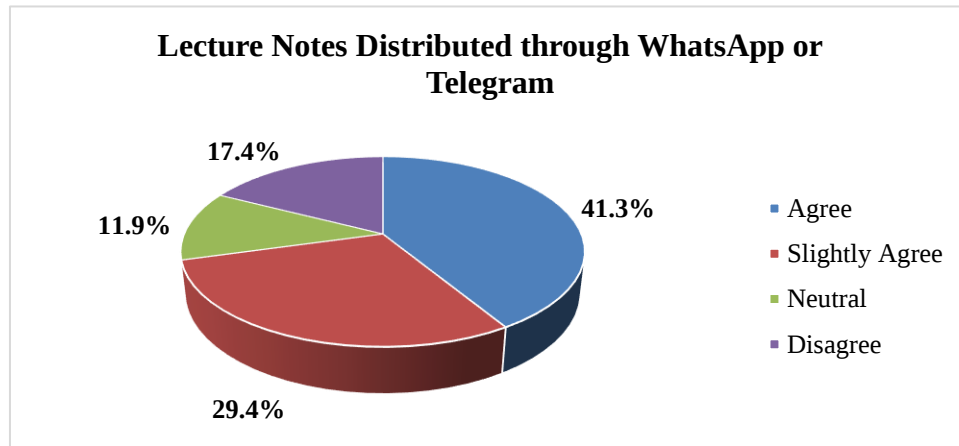


Figure 4: Lecture Notes Distributed through WhatsApp or Telegram

We also like to discover whether the students fancy to have exercises given to them on each of CSC253 lecture topic. As illustrated in Figure 5, only 27.5% of the students feel pleased to have exercises on each lecture topic. The highest percentage of students (37.6%) are neutral about this idea.

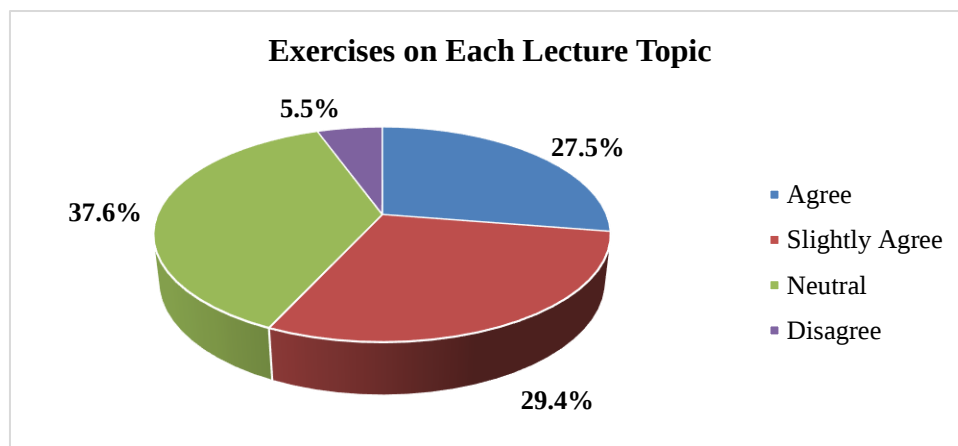


Figure 5: Exercises on Each Lecture Topic

Finally, we will also like to observe whether giving online games such as Kahoot during each lesson will help the students to better understand on CSC253 lecture topics. As seen in Figure 6, more than half of the students (56.9%) agreed that online games benefits them to comprehend the lecture topics.

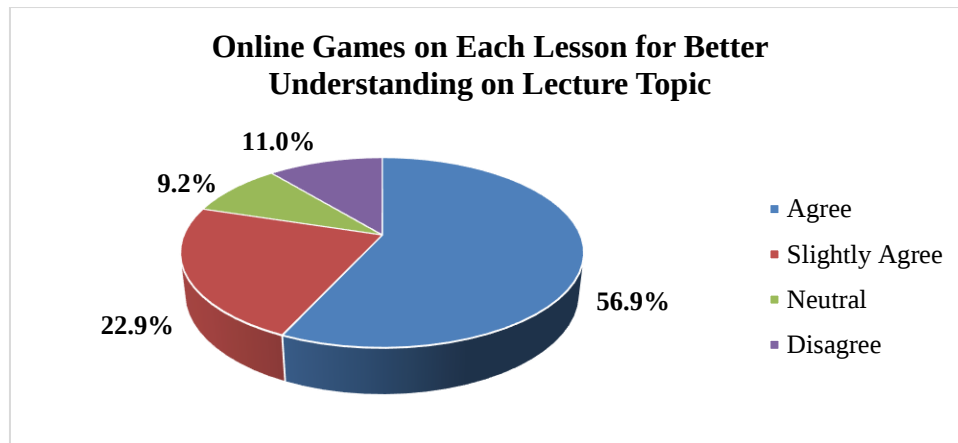


Figure 6: Online Games on Each Lesson for Better Understanding on Lecture Topic

Based on the results of the analysis performed on five key questions to discover students' opinion on ideal teaching approaches and tools for lecture classes, exercises and the lecture notes, the study found that students favoured their lecture classes to be conducted live using platform such as Microsoft Team Meet or Google Meet. Although classes are conducted using Online Distance Learning (ODL), students still prefer to have their lecture lessons to be delivered using a medium allowing for a two-way communication. Additionally, live classes using learning platform such as Microsoft Team can be recorded and shared to the students for future reference and replay repeatedly at their own pace and free time to gain better understanding of the content. The study also found that students like their lecture notes to be distributed on learning platform such as Google Classroom, Microsoft Team or UFUTURE UiTM. This is because having a centralized platform for them to refer and access the reference materials for each course throughout the semester is crucial in an effective ODL system. They also agreed to have the same learning materials to be shared in their class WhatsApp or Telegram group as well. We think this is due to more than half (51.7%) are using their smartphone as the learning medium for ODL classes as less than half of the students (46.8%) owns a computer (laptop or desktop). The study also found that less than one third of the students (27.5%) anticipated to have exercises on each lecture topic. When asked about the reasons of why they are not pleased to have exercises, the students said that they have a lot of assignments and tasks for other subjects as well as coping with ODL classes that are sometimes done beyond a set timetable schedule. However, more than half of the students (56.9%) agreed that online games such as Kahoot are able to assist the students in enhancing their understanding on lecture topics.

Conclusion

In conclusion, these findings has identified the technical issues and difficulties in carrying ODL lecture classes for Interactive Multimedia course among students. Since a majority of students (95.4%) are staying at home during ODL and only a minority of 9% of the students are not facing any technical issue such as slow internet connection, coverage problem or not enough mobile data, it is important for the lecturer to find the most suitable instructional method and tools to conduct their ODL lecture classes. Enhancements in the method for conducting the ODL lessons must be a high priority and should be enriched in future semesters. Lecturers should practice alternative approaches that suit students' technological limitations and technical concerns in order to facilitate the delivery of successful ODL classes and to increase the interests of students on Interactive Multimedia course. Students are also expected to adapt themselves to online distance learning methods despite their shortcomings, be more independent and always have effective communication with their lecturers throughout the semester.

References:

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*, 1-13.
- Allam, S. N. S., Hassan, M. S., Sultan, R., Mohideen, A. F. R., & Kamal, R. M. (2020). Online Distance Learning Readiness during Covid-19 Outbreak among Undergraduate Students. *Journal of Academic Research in Business and Social Sciences*, 10(5), 642-657.
- Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online Learning Readiness among University Students in Malaysia amidst COVID-19. *Asian Journal of University Education*, 16(2), 46-58.