

IDENTIFYING STUDENTS' PREFERENCE IN DELIVERING HANDS-ON MATERIALS DURING ONLINE DISTANCE LEARNING (ODL) FOR MULTIMEDIA COURSE

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ABSTRACT

Multimedia course is a course which does not only provide theoretical concepts to the students but at the same time hands-on materials on multimedia applications. This enable the students to enhance their knowledge on such applications and apply it in their studies. However, delivering hands-on materials especially on multimedia applications to students during online learning is very crucial to make sure that they can absorb the knowledge and understand all the features provided by the applications. A survey has been done in order to identify students' preference in delivering hands-on materials during Online Distance Learning (ODL). Results show that most of the students prefer live hands-on class by the lecturer as they can see clearly all the features and functions shown by the lecturer during the live class.

Keywords: *hands-on, multimedia application, ODL*

Introduction

Pandemic Covid-19 has changed the whole world tremendously not just in our lifestyle, but it also affects the educations style. Nevertheless, with the modern technologies, everything seems to run smoothly. Most higher institutions start implementing Online Distance Learning (ODL) in order to make the education system works well. Educators try to adapt with the current situation by enhancing their knowledge in the latest technologies just to make sure that the learners can receive all the information easily.

Learning multimedia courses through Online Distance Learning (ODL) requires effective hands-on materials so that students will be able to understand what they learn clearly. Besides theoretical concepts, multimedia courses provide learners with an experience on using multimedia applications. Yet, it is very important to understand the efficient way of delivering the hands-on materials to students through ODL so that student will be able to get the knowledge effectively.

Various ways and tools can be done to provide hands-on materials. Softcopy of lab modules and interactive videos can be shared using social communication channels such as WhatsApp and Telegram, sharing files in google drive, Ms Teams, YouTube or any Learning Management Systems (LMS). Besides sharing files or videos, live classes can be an efficient

way to deliver all the multimedia application features to students as students will be able to ask questions and get response directly during the live class.

Literature Review

Delivering hands-on materials to students is vital during Online Distance Learning (ODL). To learn multimedia applications online, various ways can be implemented such as distributing softcopies of lab modules, live class through any platform and providing and watching interactive videos on such applications.

In many areas of knowledge, laboratory work forms an essential component of learning (Duan et al., 2005; Potkonjak et al., 2016). In this area, students must allocate much of their learning time to solve practical problems and simulating experiences. Learning activities with hands-on exercises where students play an important role could help and motivate the students to learn more effectively.

A well distributed virtual experiences and practical session can replace real-life experimentation (Sheorey, 2014). Kolloffel and de Jong (2013) found that students who are learning virtually acquired a better conceptual understanding and developed better procedural skills compared to student who use the traditional way. Suggestions to meet the students learning need on accepting online hands-on materials has been done by enhancing the accessibility of experimental setups and providing a distance teaching framework (De la Torre, et al., 2013).

Ekmekci & Gulacar (2015), Chu & Fang (2015) and Sell & Seiler (2012) stated that virtual laboratories and simulations can be an efficient tool with hands-on learning experiences and practical tools, increase student enthusiasm and online experience on problem solving and furthermore can reduce workload and facilitate the learning process.

During live class, to avoid one-way communication, learners can be given an opportunity to ask questions and also answer the questions given by the instructors, based on what have been taught during the live class. This can build in active learning and improves students engagement (John, Raquel, Mary, Peter, Poh, Inga, Masters, So-Young, Rakesh, Kalyani, Alexandra, Martin, 2020). However, online lab modules can also be a value-added material to the students so that they can make revision using the lab modules after the live class ends.

Besides live class and lab modules, using videos can be quite efficient in delivering hands-on materials to the students as video is used extensively and can also be a powerful virtual learning tools (Giannakos, 2013). Developing video tutorials such as using Powtoon and Screencast-O-Matic and distributing it through any Learning Management System (LMS), MOOC or YouTube can actually help the students to get all the materials easily.

Videos can also be an effective and useful learning tool which can provide substantial knowledge (Kay & Kletskin, 2012), increase student satisfaction, and improved learning outcomes (Wells, Barry, & Spence, 2012). Interactive educational videos can also increase students performance (Wieling & Hofman, 2010) as it is easier for them to watch and get ideas

on the features of the applications. Additionally, videos can also help instructors to deliver the online materials efficiently.

Methodology

Participant

This paper is to identify the student's preference on the hands-on materials when delivering the multimedia applications through ODL. The participants were undergraduate students from Faculty of Hotel & Management who have enrolled for the Multimedia Course under the Department of Computer & Mathematical Sciences, Universiti Teknologi MARA Cawangan Pulau Pinang, in semester of September 2020 – January 2021. A simple online survey was distributed to 109 students using Google form, and all questions were successfully responded.

Instrument and procedure

A simple online survey using google form has been designed to identify student's preference in delivering the hands-on materials for multimedia applications during ODL. Besides the demographic information, Likert Scale has been used as the method to identify the students based on the statement below:

Statement 1: I prefer referring to modules when learning the software/applications.

Statement 2: I prefer watching videos on how to use the software/applications.

Statement 3: I prefer the lecturer to show the usage of software/applications during live class.

Statement 4: I prefer the lecturer to provide exercises on the software/application so that I can have an experience using it.

Statement 5: The lab exercises given to me helps me to understand better when using the software/applications.

Statement 6: The lab exercises given to me build more confidents when I am using the software/applications.

Statement 7: The lab exercises given to me help me to be more creative.

Results and Discussions

An online survey has been done to identify the student's demographic information as below:

Table 1. Respondent Demographic Distribution

No	Category	Percentage %
1.	Gender	
	a) Male	27.4
	b) Female	82.6
2.	Places stay during ODL	
	a) House	95.4
	b) UiTM College	1.8

	c) Rent house	1.8
	d) Friend's house	0.9
3.	Medium used during ODL	
	a) Laptop	96.3
	b) Desktop	1.8
	c) Tablet	0.9
	d) Smartphone	87.2
4.	Platform used during ODL	
	a) MS Teams	54.1
	b) Google Classroom	89.9
	c) ufuture	45.9
	d) Whatsapp	82.6
	e) Telegram	37.6
	f) Google Meet	3.7
	g) Youtube	25.6

The findings are represented in both visual and numerical forms. Figure 1 shows the methods of delivering hands-on materials during lab session.

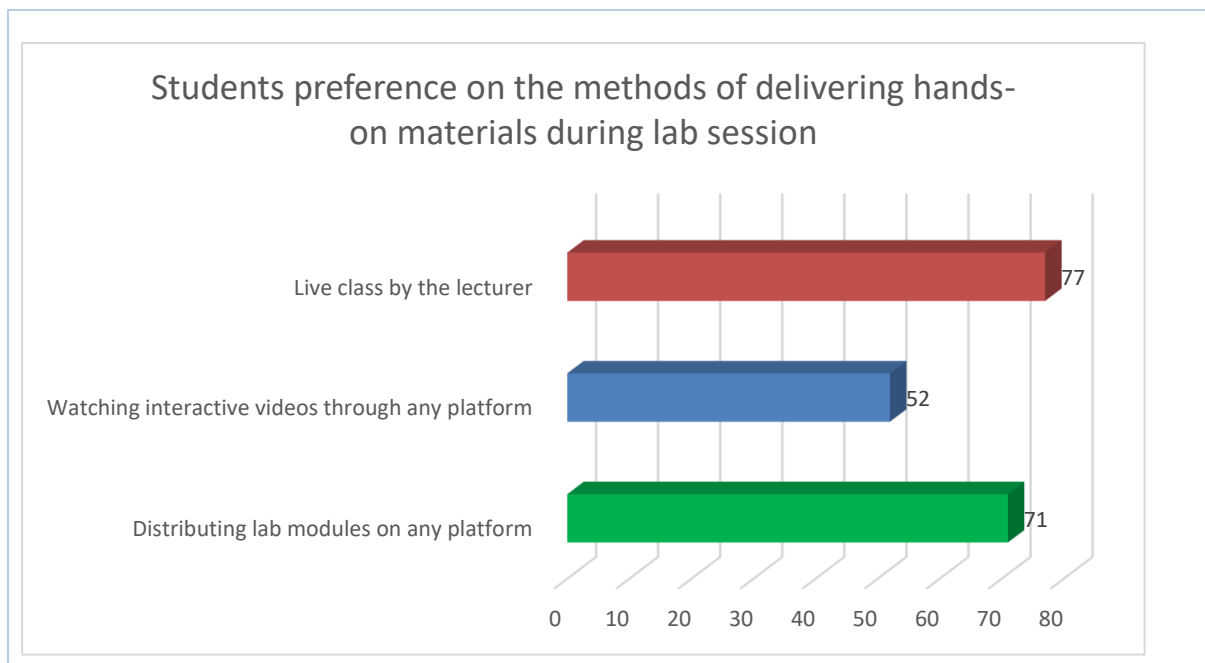


Figure 1: Students preference on the method of delivering hands-on materials during lab session.

The results show that 77 students or 70.6% students prefer live class by the lecture in delivering hands-on materials during ODL. This is because during live class, it will be easier for the students to ask questions and get instant feedback from the lecturer.

Table 2 below shows the results based on the Likert Scale done on the students preference in delivering the types of hands-on materials during lab session.

Table 2: Students preference on the type of hands-on materials during lab session

Statements	Disagree	Agree	Totally Agree	Strongly Agree
I prefer referring to modules when learning the software/applications	3	23	55	28
I prefer watching videos on how to use the software applications.	3	18	55	33
I prefer the lecturer to show the usage of software/applications during live class.	7	7	40	55
I prefer the lecturer to provide exercises on the software/application so that I can have an experience using it.	3	23	48	35
The lab exercises given to me helps me to understand better when using the software/applications.	4	8	40	57
The lab exercises given to me build more confidents when I am using the software/applications.	5	7	35	62
The lab exercises given to me help me to be more creative.	10	3	33	63

Based on the result, it shows that most of the students prefer the lecturer to show the features and usage on the applications during live class besides providing lab exercises to test and increase their understanding on the applications.

Conclusion

Delivering hands-on materials during ODL for multimedia applications is essential to most students so that they can understand easily on the features of the applications. Most of the students prefer live classes through platform such as Google Meet, MS Team or ZOOM to deliver these hands-on materials. This is because through live class, there will be a two-way communication where the lectures can show live tutorials and students can ask and get the answer immediately.

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