



MOLP: LEARNING MATH THROUGH ONLINE LEARNING PORTAL

Nur Ain Najla Fakhrunrozi¹, Irdina Nurain Zahiyan², Nur Athirah Zamri³, Wan Anisha Wan Mohammad⁴, Rafizah Kechil⁵

¹²³PPT, UiTM Cawangan Pulau Pinang, Malaysia

⁴⁵JSKM, UiTM Cawangan Pulau Pinang, Malaysia

Corresponding author e-mail: inovasiprojek@gmail.com

ABSTRACT

The Covid-19 pandemic has tremendously changed our daily routine especially in the education field. Open distance learning or ODL was implemented as another alternative for students and educators to continue the teaching and learning process as they did not get to meet physically. Many platforms have been used by educators to deliver teaching and learning materials to students. This enables students to access learning material anywhere, at any time. However, most of the materials are scattered everywhere. There is no one platform that students can use to access all the materials easily and interactively at the same time. Thus, MOLP: Learning Math through Online Learning Portal was developed as a one-stop centre to combine all the interactive materials together. At the same time, since it is developed by students themselves, MOLP can provide another way of revision where students do not only use MOLP in their studies, but MOLP developers can enhance their knowledge on the course when they develop the content. MOLP was specifically developed for Pre-Commerce students who are learning Intensive Mathematics 1. A survey has been conducted to understand the student's limitations with the distribution of the current learning materials and their satisfaction in using MOLP. All the respondents agreed that MOLP can help them in their studies and they fully recommended MOLP to their friends.

Keywords: MOLP, one-stop centre, revision

1. INTRODUCTION

Learning portals are online learning tools which provide a set of learning materials that are combined and stored in one place and can be accessed over the Internet. Online portals provide many advantages to users such as students can use them to access the content while educators for communication and getting information. Besides that, parents can get the latest information about their children's study places and activities, while the education institution itself can provide information on anything related to the institution to outside users [1]. By using an online learning portal, students can access notes easily and at any time.

Learning Management Systems (LMS) are online learning portals where they provide a two-way communication between educators and students. Besides accessing the learning materials, students can also communicate with their lecturers through the forums provided in the system [2]. Most of the education institutions nowadays provide their own LMS for the benefit of educators and students. However, this LMS depends on the lecturer to upload all the materials in a form of document or slide and students need to download the materials for them to read the content. However, some lecturers use different platforms such as Ms Teams and Google Classroom to deliver the materials to the students. Though, like other LMS, this platform needs the students to download all the shared materials and store it in their storage devices.

To overcome this problem, MOLP was developed as it can be a one stop centre for students to get all the materials easily, anywhere at any time. Besides that, the content in MOLP is interesting and interactive as it is created using the latest medium such as TikTok and Wordwall and the contents are presented using animated videos. At the same time, MOLP is developed by the students themselves.

Hence, MOLP does not only provide interactive online materials to students but also will help the developers in their revision during MOLP development

2. Product Description

The main platform to develop MOLP is by using Google Sites. It is a platform provided by Google as a web page creation tool included as part of the free, web-based Google Docs Editors suite. Google Sites is a tool that can help to create a webpage using plain text and webpage creators do not need to have knowledge on HTML. Moreover, Google Sites provide the template based system which can be customized easily. It is the easiest way to make information accessible to people who need quick and up-to-date access [3].

MOLP features consist of notes which are developed using MS PowerPoint. To make it more interactive, animations are applied to the slides and are converted into videos. PowerPoint can be a very easy and useful tool for all students to create notes after they have learnt each lesson in class. PowerPoint slides are now a platform which is almost expected by anyone to prepare a good and easy presentation [4]. It has been widely used by students and academicians as it enables them to quickly make better, neat, and professional presentations [5].

Besides that, MOLP also contains video features which are developed using the TikTok application. TikTok is a video-sharing social networking app which is rapidly growing. Besides sharing other contents, TikTok can be a very useful tool for sharing knowledge [6]. [7] In their studies, they agree that most students prefer using TikTok video as a learning tool as it is more interesting and enjoyable. TikTok allows anyone to become a creator as it is easy to use and encourages users to share creative expression videos up to 3 minutes.

Finally, exercises featured in MOLP consist of Mathematics examples and solutions which are also created using PowerPoint. Other than that, to make MOLP more interesting, students can test their knowledge after learning each chapter by playing games provided in MOLP. These games were created using Wordwall. Wordwall is a gaming platform which contains a collection of related work which can be converted to interesting activities or games [8]. Wordwall can be used to create interactive activities such as playing directly on the Net while printable activities can be printed out as PDF and be played manually. Wordwall activities can be very useful to evaluate students' understanding after they have learnt each topic [9].

MOLP Interface



Figure 1: MOLP main page

3. RESULTS AND DISCUSSION

This paper is to identify students' revision method and MOLP satisfaction in learning MAT037 among Pra Pendidikan Tinggi (PPT) students. PPT is a program which is aimed to help students from the B40 group whose SPM result is below the minimum requirements to pursue their studies in UiTM. A survey was conducted to 50 Pre-Commerce (PBA002) students from UiTM Cawangan Pulau Pinang who are taking Intensive Mathematics 1 (MAT037) course for semester October 2021-February 2022. The questions were divided into three parts which are:

- a) Demographic
- b) Revision method
- c) MOLP satisfaction

The findings are represented in the graph below. Figure 2 shows the respondent's difficulties in accessing the learning materials. Even though most students did not have difficulty in accessing the learning materials, yet 40% of the students still have difficulty when accessing it.

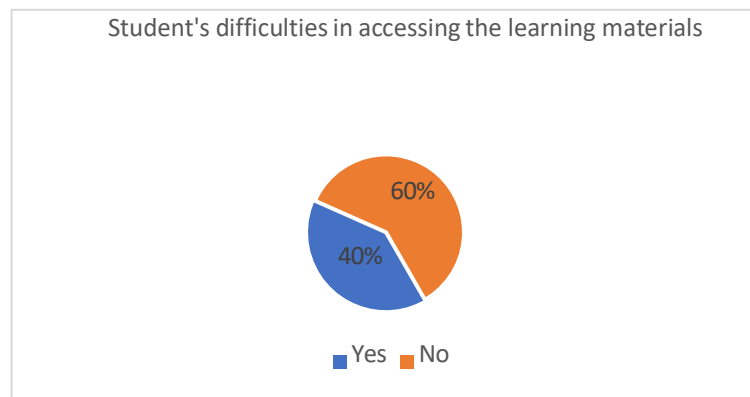


Figure 2: Student's difficulties in accessing the learning materials

Figure 3 illustrates the student's satisfaction in using MOLP. Most of the students are satisfied with MOLP as they found that MOLP is interesting and can help them easily in their studies.

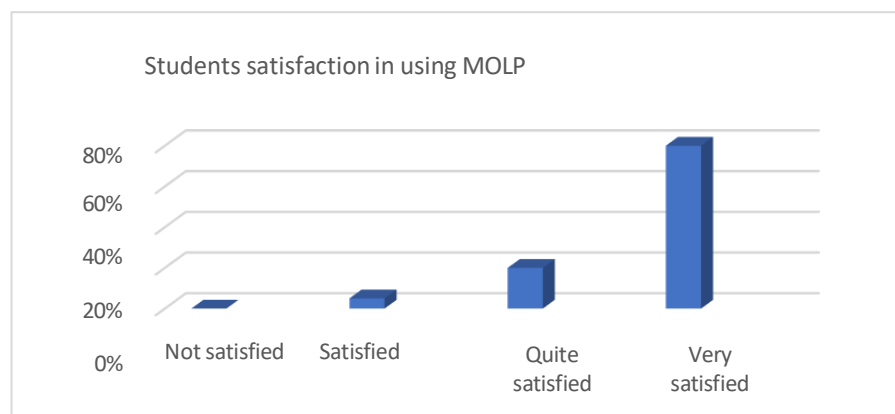


Figure 3: Student's satisfaction in using MOLP

Figure 4 shows the students recommendation of using MOLP to their friends. All the students recommend their friends to use MOLP in learning MAT037 course as most of them like the interface of MOLP and they prefer to use MOLP as one of the revision tools.

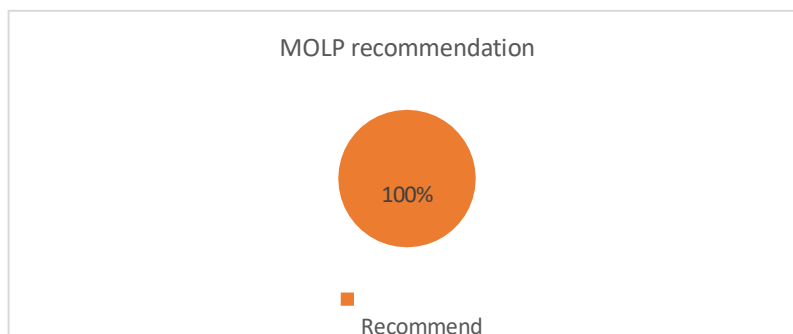


Figure 4: MOLP recommendation

4. CONCLUSION

MOLP: Learning Math through Online Learning Portal is an online learning portal which was developed as a one-stop centre to combine all the interactive learning materials together. Besides that, since it was being developed by the student itself, MOLP can provide another way of revision where students do not only used MOLP in their studies, but MOLP developers can enhance their knowledge on the course when they developed the content. MOLP was specifically developed for Pre-Commerce students who is learning Intensive Mathematics 1 course. Its features consist of interactive notes and videos, and exercises which contains examples and solutions and games to test the user's knowledge on what they have learnt. Most of the students who used MOLP are satisfied with MOLP as it provides an easy way for them to access all learning materials. They also fully recommended MOLP to their friends so that everyone can learn mathematics in an easy and interesting way.

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