EFFECTIVENESS OF ONLINE LEARNING WITH MICROSOFT TEAM APPLICATIONS IN POLIMAS

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ABSTRACT
In the age of globalization, having access to the internet has become critical to enhancing human activities in areas such as learning, economics, culture, defence, and many others. Microsoft Teams is one of technological aspects that have been integrated into learning, particularly in e-learning platforms. Microsoft Teams has a number of unique features that enable instructors to develop a better online learning environment for their students. The main aim of this study was to investigate the effectiveness of online learning with the Microsoft Team application. A total of 4638 Polytechnique students were included in the study. An online survey questionnaire was used to obtain data from students who used the Microsoft Teams application during the 2020 and 2021 covid-19 pandemic periods. Survey questions were provided within System Pengurusan Maklumat pelajar (SPMP). Only 901 responses were received at the end of the survey. Results of the survey were evaluated descriptively. Preliminary research indicated that MS Team is effective in e-learning. Overall, the results of the study reveal that Microsoft Teams Application is an effective tool for online learning since it offers unique features that enhance interaction during the learning process.
KEYWORDS: *online learning, e-learning, MS Teams effectiveness, Web-based learning, students' perception, students' satisfaction.*

INTRODUCTION

The latest and perhaps most widespread kind of distant learning is e-learning. It has had a significant influence on post-secondary learning over the last generation, and the tendency is only projected to continue. Online involves learning other supportive resources that are accessible via computer technology. This implies that e-learning is a type of distance learning, or it can also be called web-based training, computer-based education, and technology-based instructions, although each has its own meaning. To impart education, online learning uses a variety of technologies such as the internet, email, chatting, texts and groups, audio-visual conferencing supplied across computer networks. It allows the student to progress at their own speed and at their leisure.

Various scholar defines online learning in different ways. Juanis (2020) defines online learning as an approach of learning that is linked to computer-based resources that are easily available. The resources can be immediately accessed from inside a core programme (such as via online assistance). Rojabi (2021) claims that online learning can also be called e-learning. Instructors may present the same knowledge using diverse media, such as videos or simulations, with web-based learning and customizing learning. Students may study when they are most focused and interested, thanks to online classrooms that provide 24/7 access to information and lectures.

According to Nguyen (2015), Online learning systems are learning systems that integrate broadband connections with teaching and learning activities. In summary, this type of teaching varies from traditional or face-to-face learning, which requires students to physically visit a classroom. Some students lose opportunities to speak in such a face-to-face classroom unless they are self-assured and can reply promptly, but online learning gives the learner with flexibility and an engaged learning environment. In this paper, the focus will be directed on the effectiveness of Online learning with Microsoft Teams Applications.

MICROSOFT TEAMS APPLICATION

Online learning could be just as personalized, interesting, and socially linked as classroom teaching. Discussions allow students and educators to remain in contact and assist one another, while live sessions feel as though they are interacting in person. Instructors can use Tasks to assess students' progression in their daily activities. This allows them not to feel detached. Most learners who study digitally claim they stay more connected to their peers and professors than they do in the school because they have much more of a voice. Instructors may also leverage Teams' applications and features to enhance how they perform effectively, just as they can in the classrooms.

According to Juanis (2020), Microsoft Teams is a digital hub that allows educators to build lively educational experiences by bringing discussions, information, exercises, and tools together within one location. It allows instructors to create collaborative classes, participate in professional development groups, and network with peers all from one platform. Teachers can interact with students rapidly, exchange files, distribute notes and mark assignments using Teams. Educators can design engaging courses and give effective and timely feedback with the help of this technology. In addition, Microsoft Teams can be used for announcements and relevant conversations and ensure everyone in the institution (administrators, staff and learners) may remain up to date and cooperate. Professional Learning Communities allow educators to exchange educational materials.

In general, Microsoft Teams programmes are simple to download and use on both desktop and mobile devices, and its capabilities are used by people all around the world. Microsoft Teams has more advanced capabilities than other social networking platforms, such as discussion forums, collective discussions, sharing of content, videoconferencing and teleconferencing. It can be hypothesized that the Microsoft team application provides an effective online learning platform because of its advanced features.
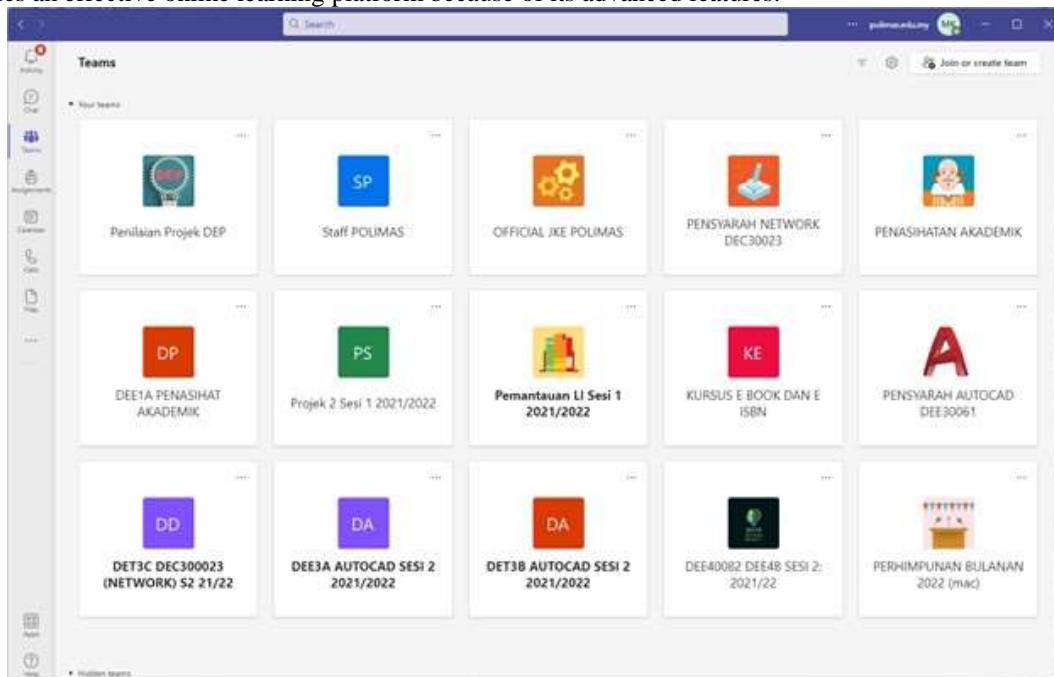

Figure 1: a screenshot of the MS Teams desktop version app revealing various features that enhance the e-learning approach.

STUDY DESCRIPTION

After using Microsoft Teams for two years during the covid-19 pandemic 2020 and 2021, a total of 4638 Polytechnic students were sampled and were required to submit an online survey regarding their Online learning experiences during this period. All students were required to fill out an online form survey within System Pengurusan Maklumat Pelajar (SPMP). A total of 901 responses were received from students.

One of the objectives of the study was to explore the effect of the Microsoft Team on perceived satisfaction and e-learning system quality. Preliminary findings indicate that the Microsoft team application is easy to download o personal computers. Besides, it has features that promote easy navigation, especially during the online learning process. Participants were guided to evaluate their encounter with the application and how it affected their learning process.

Another objective was to evaluate the efficiency of the MS Team, its impact on interactive learning, and its effectiveness in terms of online learning. There is evidence suggesting that MS Teams allows instructors

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and students to interact in a better way than in a traditional classroom. The teacher is able to teleconference or video conference with students. In addition, files and other materials are said to be disseminated via the application in a more effective way.

To justify the assumption from preliminary research, the survey was formulated to explore the students' Perceived self-efficiency (3 items); perceived satisfaction (4 items); e-learning system quality (2 items); interactive learning activities (2 items); and E-learning effectiveness (3 items). All the items were scored using a Likert scare. The students were required to select one of the following as a measure of the items: very disapproving; disagree, less disagree, agree; or very agreeable. The results of the study are shown in the table below.

The table below shows the results for each of the questions used to assess online learning experience, with higher values indicating more agreeable encounters (425) and less disagreeable (13) and very disapproving (10) outcomes. Participants were relatively positive regarding using Microsoft teams across the board, with over 70 per cent being happy, as evidenced by responses to the 16 questions in the table below.

Table 1: MS Team Survey results

No	Items	Very Disapp-roving	Disagree	Less Agree	Agree	Very Agree-able	Total
	Perceived self-efficacy						
1	I feel confident looking for learning notes using Microsoft Team.	7	14	94	409	377	901
2	I feel confident controlling functions within Microsoft Team.	9	19	92	422	359	901
3	I feel confident using the MS-Team system during my online studies.	12	19	100	388	382	901
	Perceived satisfaction						
4	I am satisfied with how notes are taken through Microsoft Teams.	11	10	93	414	375	901
5	I am satisfied with the method of submitting tasks using Microsoft Team.	9	15	91	411	375	901
6	I am satisfied with the speed of the internet while learning online.	23	27	168	387	296	901
7	I am satisfied with the Microsoft Team feature.	11	15	98	410	367	901
	e-learning system quality						
8	I am satisfied with the use of the Microsoft Team for learning assistance.	9	16	100	415	361	901
9	I want to share Microsoft Team's learning experience with other students.	11	22	114	421	333	901
	Interactive learning activities						
10	I believe Microsoft Teams can help interaction between students during online learning.	9	18	110	416	348	901
11	I believe Microsoft Teams can help interaction between lecturers and students during online learning	9	17	114	413	348	901
	E-learning effectiveness						
12	I believe Microsoft Teams can help increase learning motivation.	12	15	131	404	339	901
13	I believe Microsoft Team can help improve the level of learning achievement	11	14	120	415	341	901
14	I believe the Microsoft team can assist you in learning more effectively.	10	13	116	425	337	901

Table 1: displays responses from Polytechnic students who had used Microsoft Team during the 2020 and 2021 covid 19 pandemic period. The table also reveals the number of students that responded to each question. The Likert scale reveals whether the student had negative or positive experiences. The experience ranges from "very disapproving" to "very agreeable".

DISCUSSIONS

The data in table1 reveal that how students consider the utility of Microsoft Teams as an online learning platform has an impact on their willingness to utilize it. It also reveals how students view the convenience of using Microsoft Teams as an online learning tool as well as their desire to adopt it. In his study regarding individual users' acceptance investigation for e-learning in learning institutions as an effective teaching tool, Rojabi (2021) found that perceived usefulness and perceived simplicity of use had a substantial impact on intention to use.

When it comes to student involvement with the education system in web-based learning, it may be argued that student interaction is also valuable in engaging learners. In a study conducted by Lin & Lin (2015), findings agree that student-student interactions, as well as teacher-student interactions, should constantly be designed to increase the forum for communication of each activity in the teaching and learning process. Seemingly, the Microsoft Teams application tends to agree with this aspect of online learning since it provides chatting, conference features, a discussion room, and a platform to allow sharing files and evaluating performance.

The current study is directly related to a previous study carried out by Martin & Tapp (2019), whose results and findings indicated that synchronous learning promotes collaboration and interaction between students and their instructors. This enables them to have full access to all study resources via the study tool. According to the current study, the majority of students agree that Microsoft Teams enable them to freely interact with their colleagues and their lecturers, unlike in the classroom. On this platform, lecturers are able to synchronously teach and provide simple learning activities and simple tasks that students can fully engage in and respond to with ease.

Another study by Poston et al. (2020) confirms that the Microsoft team is beneficial when it comes to handling group works; students are able to collaboratively work on group work assignments using the Microsoft office feature provided on the platform as they take the online course. These results are consistent with the current study that was done among polytechnic students. It is evident that students felt happy because they were able to receive learning resources. In addition, students were able to do their assignments and engage in discussion forums as well as actively engage in learning via MS Teams during the COVID-19 pandemic period.

CONCLUSION

Microsoft Teams has the potential to expand as an online learning platform since it offers capabilities not found in other learning methods. One of the advantages of adopting Microsoft Teams is that it is simple to incorporate into a course management system, which will improve user interactions and is an essential component of e-learning. Based on data and discussions, it can be concluded that e-learning using Microsoft Teams provide the best support for students' learning environments. The majority of research participants had a positive view of on a virtual classroom. The respondents' positive opinions stemmed from their online learning experience using Microsoft Teams. Furthermore, online learning facilitates interactions between students as well as between students and teachers. Since the present study used a relatively large sample, the results can be generalized to a larger population. The research has provided regarding how students perceive web-based learning. In digital learning, future studies should look at the relevance of student engagement as well as the training environment. More study might broaden the student sample to include a wider range of graduate and younger students.

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