

Embracing Online Distance Learning Software in the time of Movement Control Order (MCO)

Syarifah Adilah Mohamed Yusoff*

syarifah.adilah@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Saiful Nizam Warris

saifulwar@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Elly Johana Johan

ellyjohana@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Naemah Abdul Wahab

naema586@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Rozita Kadar

rozita231@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Mohd Saifulnizam Abu Bakar

mohdsaiful071@uitm.edu.my

Department of Computer and Mathematical Sciences
Universiti Teknologi MARA Cawangan Pulau Pinang, Malaysia

Corresponding author*

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ABSTRACT

Online Distance Learning (ODL) is a kind of teaching and learning mode popular among part time students which usually committed with other priority job. In Malaysia, when MCO is firstly implemented, all level of education institutions has been plugged with ODL as the best mode in implementing teaching and learning for both full time and part time students in order to sustain the learning process. This research has collected information of online learning platform that frequently being used by bachelor degree students of Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang who were enrolled in a Computer Programming Course. The data acquired at the start of the first three semesters of MCO were implemented. After the third semester of ODL implementation, MS Team was chosen as the most convenient online learning platform by students, with a 95% vote. This discovery is important for faculty and academic affairs to promote hands-on or additional training for lecturers and students to sharpen their skills using this popular software since the bright future of the ODL method for learning will be pursued and nourished even after the MCO.

Keywords: Online Distance Learning Software, Learning MCO,

INTRODUCTION

In contrary to traditional face-to-face teaching, online distance learning is the concept of giving the lecture of specific lesson via telecommunication medium with the audients are far away from the instructor. The ODL concept is split into asynchronous and synchronous learning and both have its own advantages and disadvantages. Synchronous learning happens in real-time with specific virtual place at as set time. It can be done using video conferencing, teleconferencing, live chatting and live-streamed lecture between instructor and students (Bower et al., 2015). Meanwhile, asynchronous learning happens in your own pace of learning with no real-time meeting. Students will be provided with material for reading, lecture for viewing, assignments for completing, exam for evaluation and satisfied all the requirement on their own schedule as long as they meet the expected deadlines. Both of this learning method has their own advantages and disadvantages.

Synchronous learning will enjoy several features and the most of them is classroom engagement that is similar to lecture hall when personal interactions with peers and instructor happen incorporating with active discussion and immediate feedback. This feature is very much benefited for those who just in the beginning of transition from traditional classroom to online and has low self-discipline to learn independently. Further, synchronous learning offers dynamic exploration of topics, idea and concepts where both instructor and students will utilize online information gather from internet such as YouTube and website by sharing them in online

discussion. This will get attention from audience and makes it possible for students to ask question or complimentary idea in mid-lesson. Synchronous learning offers instructional depth due to consistent and frequently contact with instructor and colleagues via instant messaging group. Students that has less confident to start the discussion or ask question in lecture hall usually has no problem to engage into virtual discussion since the physical appearance is invisible. Hence utilize the interaction, guidance and mentorship using virtual group discussion is the best option.

Asynchronous learning is the ultimate students-center learning approach where the learning process happens on students' own schedule and paced. With this flexibility, the self-discipline attitude is highly demanded among student. Part-time students that have a demanding schedule or keep weird hours to study may gain this method as an opportunity when materials provided such as soft copy of lecture notes, interactive learning modules, recorded video lectures are given within a set of period or accessible anytime when its best suit student's schedule. Students will able to complete a module on the car or train ride to work, listen to a lecture while babysit or cooking and take a pop quiz over lunch break. Learning within student's own pace is the most empowering feature when they can read, review materials and completing them based on their understanding rather than on when class time ends. Students able to absorb knowledge, review information and practice retention without worrying falling behind classmate or missing the key points in a lecture. Anyhow, according to some studies (Musingafi et al., 2015; Twigg, 2009s) the statistics have shown the high rate of student's drop-out and late program completions because of the feel of isolation and the risk of apathy when there were no strong engagements between colleagues and instructors.

In certain circumstances, combination of both methods showed improvement of teaching and learning in distance learning. Maglogiannis & Practices (2007) and Judy (2012) has studied the implementation of both synchronous and asynchronous methods for adult training in military. Both studies were done to investigate short course for military that enrolled for distance learning mode and the result proved the efficiency of implementation of hybrid asynchronous and synchronous.

Online Instant Messaging in Community

New online technologies that influence how data is manipulated into information, shared and connected hold promise for education. Online instant messaging has been widely used around the globe for many years and absorb into community in any level of age begins from kids until adults. The online instant messaging is real-time text transmission via internet and boost-up by appearance of smartphone and explosion of mobile apps by offering more interactive features such as group chats, exchange of graphics, video and audio messages as well as stickers or emoticons. The very low-cost or free chat and social messaging technologies have proven as an alternative to operator-base text messaging via SMS or MMS. According to (Tankovska, 2021), most popular worldwide mobile messaging as for January 2021 and based on monthly active users is leading by WhatsApp, followed by Facebook messenger, WeChat, QQ, Telegram and Snapchat consecutively.

Anyhow, cultural differences are major effect in the chosen of instant messaging apps. In Malaysian society, almost 97 percent internet population known and used WhatsApp as most

frequently used and convenient application for communication among colleagues (Telenor Research, 2016). In China, western apps such as Facebook messenger are blocked and WeChat which developed by one of biggest Asia's companies has been the most popular instant messaging.

Apparently, convenient features for group chat purposes for both learning and social communication, telegram offers best features to be utilised by user. There are many features to be compared, but focusing on group chatting for learning Table 1 has summarized valuable comparison for both Telegram and WhatsApp (Mugerwa,2019) and (Telegram VS Signal, With WhatsApp Comparison Table, 2021) focusing to educational and creative features.

Features	Telegram	WhatsApp
Group members	200,000	256
Group smart notifications	YES	NO
Cloud sync	YES	YES, requires active
File sending (in any format)	Up to 1.5GB	Up to 100MB
Edit sent message	YES up to 48 hours	NO
Web/Desktop version	YES	YES, requires active internet on phone
Pinned chats	YES	YES
Pinned messages to top of group chat	YES	NO
Mute all groups by default	YES	NO
Polls in group chat	YES	NO
Delete message from group member as administrator	YES	NO
Folder structure for chats	YES	NO
Bolt	YES	NO

Table 1: Comparison of group chatting features between WhatsApp and Telegram

Hence, as the information gathered, that will be more fascinated when lecturers and students take the opportunities to explore and utilised the features.

Online Distance Learning Issues and Challenges

The aim of online distance learning (ODL) which is also known as e-learning or collaborative learning is not to replace the teachers but to empower the learning medium and to keep up with the latest technology that is being absorbed deeply around the world as social culture. Collaborative learning tools are essentially to improve student's engagement and polish the

independent attitude in learning especially in teamwork due to decrease interest is widespread. Technology is well known as a powerful tool for innovative learning by continuously redesign the idea and features of collaborations through online learning tools (Pratama & Kartikawati, 2017) . Interaction with peers in accomplish their education goals through co-creation of communities of learning and the use of virtual learning promote immerse learning in accomplishing the learning goals (Bower et al., 2015). Therefore, the creation of MOOC platform, blended learning and E-learning initiate the students to engage with technology for independent and long-life learning. According to Pamfilie et al. (2013), the online learning promotes collaborative with industries or companies that may provide real case studies to provide students practical scenarios. Furthermore, the increase in corporate incentives for staff training in the United States has spurred investment in technology-based training, which benefits the organisation in terms of innovation and leads to greater business performance. Both Pamfilie et al. (2013) and Bower et al. (2015) investigations indicated that the increase in internet users multiplied each year and the ubiquity of internet infrastructures supported the life-long learning via online collaborative education learning.

The COVID-19 pandemic has had a negative impact on all global operations, including educations that target face-to-face human contacts. Suddenly, every level of education must transition to online and distance learning modes. Starting from here the role of ODL as added tools to improve the learning process changes into mandatory method and replace traditional classroom of face-to-face learning. Universities upgrade their network infrastructures, engage with corporations to make online learning software and cloud data facilities available, and provide training and support through a series of webinars. Instructors and teachers were outfitted with online gadgets such as tablets and pointing devices to facilitate online learning sessions. Furthermore, immediately changes all pdf or slides teaching materials by developing series of short videos and make it available via cloud or YouTube channels. Academic administrators immediately improve the syllabus contents and assessments to make them suitable for online evaluation. Last but not least, students in both rural and urban areas must be prepared with internet connections, a smart phone, or a computer to ensure that the online learning process runs seamlessly. These improvements have reduced the challenges or gaps in adopting online learning that researchers previously reported prior to MCO.

According to Andersson (2008) there have been seven major challenges for e-learning in developing countries which are support, flexibility, teaching and learning activities, access, academic confidence, localization and attitude. Regardless, after the first wave of MCO in 2020 and several months of online experience, García-Morales et al. (2021) has reported the phenomenon of online learning will continue and stand out in this invasive digital era. Universities have to develop sophisticated learning environment combining face-to-face and online mode learning to harness the potential of technological tools. The assertion is confirmed by a survey conducted by all European institutions, which shows that most universities have resolved to deliberately explore new ways of teaching and expand digital capabilities beyond the crisis (European University Association,2020). The collaboration between Ministry of Education and corporations such as Internet Service Providers, Microsoft and Google Inc. have taken serious support to facilitate better infrastructures, bandwidth of internet connections, data and broadband packages, particularly for students. Learning software platforms such as Microsoft

Team, Google Classroom, Cisco Webex, Zoom, Padlet, TodaysMeet, Socrative, Twilda, and many others that offer free and improved commercial versions now have significantly more upgraded features for collaborative and interactive learning processes. Microsoft Team, Cisco Webex and Zoom have incorporated features of breakout room for gamification to boost students interest and engagement that have been major concerns and challenges for ODL learning (Dugnot-Menéndez et al., 2021).

Furthermore, several local studies have found that using various tools in online education to facilitate two-way communication between instructors and students has increased students' attractiveness and motivation when learning online. Mohamed Yusoff et al. (2020) has investigated the student's interaction when teaching and learning via google online and KAMI application as interactive and easy to be implemented for online education. Further, the similar research was done again by Mohamed Yusoff et a. (2021) that have investigated the impact of WhatsApp as an interactive instructional tools for learning computer programming language in ODL sessions. The study showed very good feedback from students and even better compared to face-to-face in terms of student's ability to engage in lesson, enjoy the interactive communication and did not shy to ask questions and give responses. Another study by Abdul Rahman and Abdul Ghani (2021) has investigated and discover the effectiveness of notability and the use of ipad as a tool for teaching and learning Calculus on online class. The results positively showed the increment of active learning due to creativity of instructor in implementing different tools in online teaching.

Many studies have found that high-education learners are negatively impacted by full ODL in terms of emotional problems. (Aristovnik et al., 2020) has reported fear, frustration, anxiety, anger, boredom are among heavy emotional health concern happened to the students start from pandemic issues, besides their personal financial situation such as loss of student job, future education and career. Once the pandemic is over, the concern of emotional problem expected to reduce and concerns are solely cause by ODL implementation. According to García-Morales et al. (2021), students are emotionally difficult to fully concentrate in a solely online context due to boredom, a sense of isolation, a lack of time to follow the various subjects, and a lack of self-organizing capabilities. Among these four emotional and attitude issues, boredom, isolation and compact schedule of subjects are among keep rising issues that also happen in traditional classroom.

In fact, not all instructors and university professors are comfortable with online teaching because ODL necessitates proficient computer expertise, proper handling of teaching and learning technologies, and specific communication abilities for an online setting. According to Dwivedi et al. (2020) setting up online teaching environment for professional screen appearance is necessary for the success of ODL. Good lighting is important for successful online delivery, as is a good combination of microphone and sound to ensure instructor's speech is well captured, and the usage of headphones to focus on the session without distraction. Another study also has reported that real-time online sessions are essential for students' attentiveness, with real-time video conferences being the most satisfying, followed by video recording, sending presentations, and writing communication. In the meantime, audio recording was the least satisfied (Aristovnik et al., 2020).

As a result, with the globalisation of digital technology and its deep penetration into social interactions in daily life, there is little dispute about the significance and benefits of ODL in modern teaching and learning. Similar to conventional learning, the emotional and behavioural attitudes of students and instructors are primary importance, followed by the enhancement of features of the online platform to promote human-friendly learning styles. In that circumstances, the goal of this research is to identify the greatest aspects of online learning platforms that are most convenient for students in order to improve future engagement and interaction between instructor and students.

METHODOLOGY

In general, technologies are ubiquitous and already has been utilized to accommodate students in teaching and learning for years. When universities have been pushed to switch from traditional learning to completely e-learning mode of teaching and learning due to pandemic COVID19 issue and Movement Control Order (MCO) has been implemented throughout the country. University, students and lecturers push out all the buttons to make these new norms of learning useful and utilised wisely in order to achieve the highest goal of teaching and learning. There is no only the course outline is restructured, but empowering workshops through webinars session to expose students and lecturers into learning some of well-establish collaborative online tools to help them master all the available features to accommodate teaching and learning online activities successfully.

Since the deployment of total e-learning at the start of MCO, three distinct surveys have been conducted to better assess students' readiness and which online technologies are the most convenient among them. The data was gathered from students from the Faculty of Civil Engineering who were enrolled in the Introduction to Computer Programming course at Universiti Teknologi MARA, Pulau Pinang in three separate semesters: Mac 2020, October 2020, and March 2021. The respondents were in their fourth, fifth, or sixth semester of studies. The purpose of this research is to determine the most excellent online learning software to aid learning among instructors and students across three semesters of MCO implementation in Malaysia.

RESULT AND DISCUSSION

Figure 1 shows the data collected from 74 students that have enrolled in semester March until August 2020. This was the first batch of students that start the full ODL transformed after 2 weeks of traditional classroom. Which means, previously they have no experience of attached to any online learning software and the survey data was taken in the early of semester when the ODL just started. All the online learning software were gathered based on students' preferences and they may add new online learning software if any. The data indicate that the most popular online software among students are both WhatsApp and zoom applications with the percentage were 74 percent and 63 percent consecutively. WhatsApp was the most popular because the software itself can be used when user has limited connection especially in rural area. By that time most of students only have very limited access of the internet. Figure 1 also indicate that others online learning software have slightly more or less than 50 percent voted. Among listed software, video recorded and YouTube were added on method of learning and cannot be considered as main teaching and learning software since there has no interactive communication among

lecturers and students. Meanwhile ilearn, UFUTURE, and MOOC were combination of e-learning platform provided by UiTM for their students. Throughout the semester, both lecturers and students have been using several different online software in order to get used with skills and experiences in looking for the most ideal software to be used and established for future references.

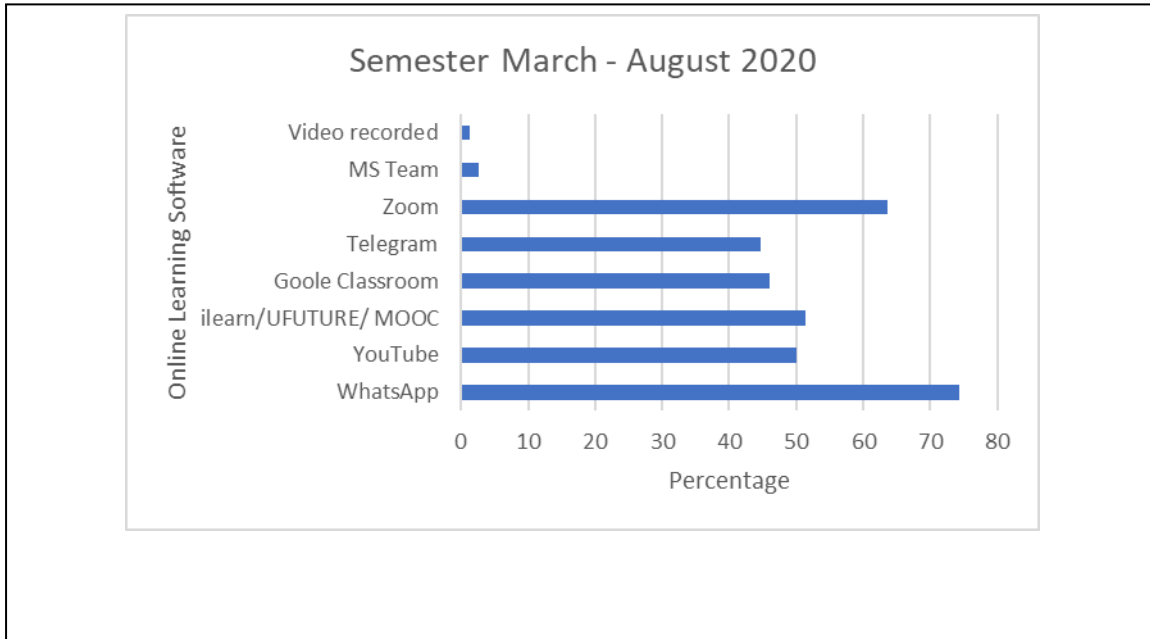


Figure 1: Widely used online learning software in March- August 2020

Data illustrated by Figure 2 was taken in early semester for the next semester after March- August 2020. Which means that all the enrolled students have already experienced ODL in their previous semester. In this semester, students were preferred to learn using Microsoft Team which scored about 86 percent among total of enrolled students for that semester. Meanwhile WhatsApp, Telegram, Google Meet and Classroom were scored more than 60 percent and less than 72 percent all together. Here, Google Classroom and Meet have more features for collaborative learning, but features of instant messaging such as WhatsApp and telegram that used less internet data and stable for low connections make them more preferable for the students. Even though, many internet service providers were improved their package and service promotion for user since the MCO was implemented (The People-Centric Economic Stimulus Package, 2020). Zoom Software were dropped due to security issue from the company and university e-learning software, ilearn, UFUTURE and MOOC were rarely being used and rated only 2.3 percent among students due to frequently unstable and server down.

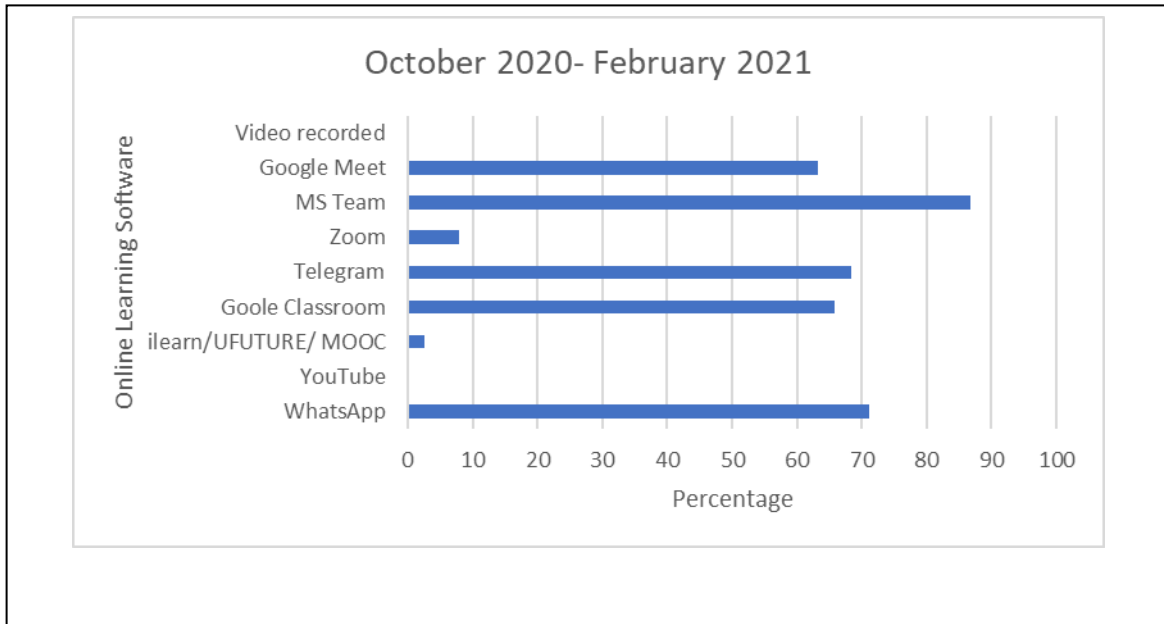


Figure 2: Widely used online learning software in October 2020- February 2021

By the third semester of ODL implementation, we are expecting the establishment of online learning software after 2 semesters of tried and errors for the best tool of teaching and learning. Figure 3 shows data that has been collected in early semester of March 2021. The figure shows that MS Team as most popular software among students which has shown the increment of selections from 86 percent from last semester into 96 percent for this semester. Further, Telegram was selected as second the best software followed by WhatsApp application and Google Meet consecutively. The rest of others software were selected less than 60 percent among students.

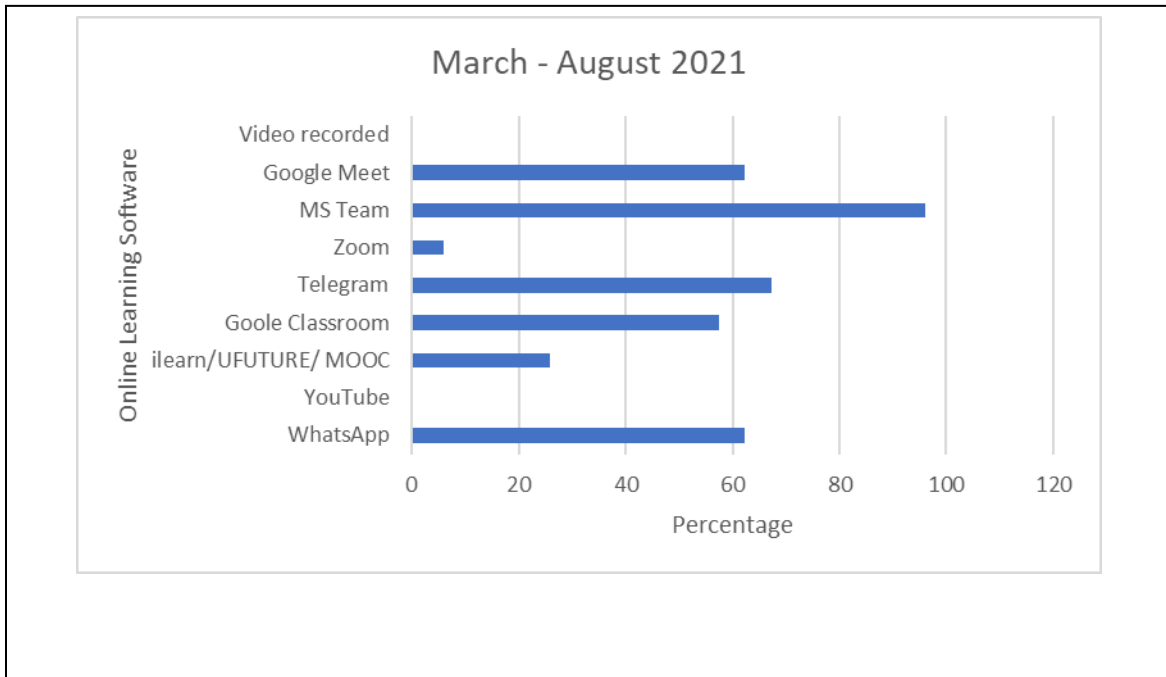


Figure 3: Widely used online learning software in March-August 2021

CONCLUSION

Movement Control Order has extended the implementation of ODL in concept of e-learning as a new norm of teaching and learning mode with mandatory to all institution. Fortunately, with the latest technology, online collaborative, online instant messaging applications, smartphone and computer technology have played biggest roles in successfulness of the implementations. On the first semester WhatsApp has been selected as most popular media of learning because the app was the most widely and simplest way to be used as instant messaging and available for low bandwidth. Throughout semester, collaborative learning software such as Ms Team, Google Meet and Classroom have been consistently selected as among the best option. Firstly, this might due to the stability of the software in integrating all features of teaching and learning either as synchronous or asynchronous mode, improvement of bandwidth and promotion from local internet service providers and the most important is centralized work among group members thus teaching and assessment were well delivered. Hence, on the third semester Ms Team has been selected as the most popular online software to perform ODL. This survey has proved that collaborative learning platform such as MS Team is the most convenient software for ODL when all the video conference, instant messaging, group collaboration and easiness in managing test and assignment between lecturer, students and their colleagues are centralized. In future, additional research to add persuasive features into online teaching and learning with the goal of increasing student engagement and commitment. The persuasive element could be one of technology to affect students' attitudes, behaviours, and beliefs without intimidating or deceiving them.

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About the Authors

Dr. Syarifah Adilah Mohamed Yusoff was born in Melor, Kota Bharu, Kelantan. Her carrier in education starts after received Bachelor Degree of Information Technology (Computer Science) in 2000 from Universiti Kebangsaan Malaysia. She is a lecturer in private collage for a year before joining UiTM in 2002. Passion with learning activities, she obtained her Master of Science in Information Technology from Universiti Utara Malaysia in 2005, then PhD degree in Computational Intelligence from Universiti Sains Malaysia in 2016. Her research interests are Machine Learning, Bio-Inspired algorithms, Deep Learning, Supervise/unsupervised Learning and teaching and learning paradigm.

Currently, En. Saiful Nizam Warris is a senior lecturer attached to the Department of Computer and Mathematical Sciences, UiTM Penang. He joined UiTM since 2002 as a Lecturer. He received his first degree of Bachelor of Information Technology in 2000 and Master in Information Technology in 2003 both from Universiti Teknologi MARA. His research interests are web-based system, database management and versatile in programming languages. Thus, passion in developing web-based system and applications.

Naemah Abdul Wahab is a Senior Lecturer of Computer Science at the Faculty of Computer & Mathematical Sciences, Universiti Teknologi MARA Cawangan Pulau Pinang. She joined UiTM as a lecturer in 2005. She graduated from Universiti Sains Malaysia with a Master of Science in Computer Science and holds a Bachelor of Computer Science (Hons) from the same university. She majors in Computer Programming and has been teaching programming courses for more than 15 years. Her research interest includes e-learning and Computer Science in Education.

Dr. Rozita Kadar received her bachelor's degree and master's degree in Computer Sciences from Universiti Teknologi MARA and Universiti Sains Malaysia respectively. She joined Universiti Teknologi MARA in 2002 as a Lecturer. She finished her PhD degree at School of Computer Sciences, Universiti Sains Malaysia in the field of Service Systems Engineering. Her research interest includes Software Maintenance, Program Error Detection & Correction, Program Comprehension, Program Visualization, Program Slicing and Information Retrieval. She is looking forward to exploring new area of research and collaborations with other parties.

Mohd Saifulnizam Abu Bakar is a Senior Lecturer from the Department of Computer Science and Mathematics of UiTM Cawangan Pulau Pinang. He took admission in Universiti

Malaya and receive a degree of Computer Science in 2005. After his graduation, he joined the University of Reading, United Kingdom and received a Master of Network Centred Computing in 2007. His specialization is in Network, Social Media Marketing and Web Development.