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The Use Of Google Meet In Learning Arabic Language During Covid-19 Pandemic

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Abstract: The Covid-19 pandemic has shifted the education landscape from conventional learning to online learning. As reported by the United Nations, Covid-19 has affected roughly 1.6 billion learners. Most instructors need to deliver their teaching activities online including instructors in higher education institutions as all higher education institutions in Malaysia are also closed due to this pandemic. Hence, the academicians need to prepare themselves with the technological knowledge and skills in providing an effective learning environment for students while students need to adapt to this new educational process. There are various online platforms that have been implemented to engage the students in language online learning and one of them is Google Meet. Google Meet is widely used in many higher education institutions to disseminate knowledge. The two theories used in this study are TAM (Technology Acceptance Model) and CoI (Community of Inquiry) to guide the implementation of the use of Google Meet in Arabic language learning. This paper analyses the advantages and disadvantages of using Google Meet in language learning and the implementation of Arabic language learning by employing it.

Keywords: Covid-19, Google Meet, Arabic Language, Vocabulary Learning, Online Learning,

INTRODUCTION

Covid-19 is the disease that started from Wuhan, China and it has spread to all over the world expeditiously. The World Health Organization (WHO) has declared Covid-19 as a pandemic in March 2020. The pandemic has created a big impact not just to the health sector but other sectors too, especially in the education sector. Due to the Covid-19 pandemic, the education system has been seriously affected due to the abrupt switch from face-to-face learning into online learning. As reported by the United Nations (2020), Covid-19 has affected roughly 1.6 billion learners from more than 190 countries. Concerning this issue, many countries have ordered schools to be shut down including higher education institutions in order to slow down the spread of Covid-19. To ensure the sustainability of education, the mode of learning has switched to online learning as (Wahab Ali, 2020).

Likewise in Malaysia, the Ministry of Higher Education has been instructed to close all universities and colleges due to the Movement Control Order (MCO) announced by the Prime Minister. The teaching staff need to embrace the new challenges in integrating the technology and instructional learning whilst equipped themselves with the training provided by university as a means of up-skilling their teaching approaches as well as expanding their capabilities. This situation also affected the students in many aspects such as motivation, emotion and achievement.

Arabic language is a third language class offered by Universiti Teknologi MARA (UiTM) and it is a prerequisite course before graduation. Students are allowed to choose any third language class offered such as Arabic language, Mandarin language, Japanese language, French language and so forth. Learning vocabulary is a very important part in any language with the four basic language skills: reading, listening, writing and speaking. As mentioned by Muhammad Naufal (2021), one of the issues in learning vocabulary is the suitability of the teaching methods used as it would influence the learners' vocabulary acquisition. The research by Norhana (2017) suggested that introducing digital technology in teaching and learning will improve vocabulary acquisition. Due to the deadly pandemic, educators have to integrate technology and instructional learning from face-to-face learning to online learning in order to ensure vocabulary learning is at optimum level.

A study focusing on student's acceptance of Google Meet while using TAM Model as a theoretical background, revealed that students' intention in employing the technology amid Covid-19 pandemic is higher when the online platform has positive effects in teaching and learning process (Rana Saeed et al., 2021). Online learning is an inevitable alternative and it became the most popular teaching approach due to practicality aspects during the Covid-19 outbreak (Rizal Wahid, 2021). There are a plethora of online learning platforms that make teaching more effective and interactive in order to overcome that predicament. For instance, Google Meet, Google Classroom, Zoom Meeting, Cisco Webex, Microsoft Teams and instant messaging applications such as WhatsApp, Telegram and so on.

Google Meet is one of video conferencing softwares that has been widely used in schools and higher education institutions since the Covid-19 outbreak. Previous studies has shown that the use of Google Meet in learning English was able to improve the students' motivation and determination (Rizal Wahid, 2021) However, the feeling of fear as consequences from the spread of Covid-19 is scaled down to its lowest possible level (Rana Saeed et al., 2020). Similarly, a study using Google Meet as a synchronous language learning tool found that learning outcomes could be achieved via lessons conducted on Google Meet and language activities delivered in online classes are more organized (Chinaza, 2021).

There are many researches conducted to investigate online education in the English language, yet there are hardly any researches pertaining to Arabic language learning during the pandemic especially in Malaysia. Therefore, this paper is an attempt to fill the gap in the relevant literature. This paper also intended to focus on the implementation of Google Meet in learning vocabulary by identifying its advantages and disadvantages particularly in Arabic language.

ADVANTAGES AND DISADVANTAGES OF GOOGLE MEET

There are diverse features in the Google Meet application for teaching and learning purposes. Google Meet is a free Google product with an easy setup and one of the best tools for group video conferencing. Hence, as a complimentary application (Silvisca & Latifah, 2020) made it a convenience tool for both teachers or instructors and learners to access Google Meet

effortlessly under any circumstances. In order to make the learning process easier, Google Meet has completely featured a digital whiteboard (Aswir et al., 2021) which allows instructors to write and explain Arabic language lessons comprehensively via an interface provided called 'Jamboard'.

Besides that, this platform is supported by Android, iOS systems and web browsers which make it possible to join the video meeting using computers or/and mobile devices (Basilaia et al., 2020). Therefore, this handy tool allows learners to access the application easily either from their smartphones or laptops. On the other hand, the 'share screen' function in Google Meet helps instructors to deliver teaching materials (Aswir et al., 2021). The function of 'share screen' is not only limited to instructors who host the Google Meet, yet it is also applicable for learners to present their screen materials to others. This promotes a positive learning environment and builds a good rapport between the instructor and learners. In the meantime, the learners also can contribute ideas through this function while the instructor can display various forms of teaching materials such as texts, videos, or even digital textbooks.

Moreover, Google Meet can support up to 250 participants for video conferencing (Gowda & Ayush, 2020). The total number of participants that can be accepted by Google Meet is significant for learners in Universiti Teknologi MARA especially in teaching and learning Arabic language. Each group of students accommodate only up to 30 students which make this application suitable for virtual class. Another useful function of Google Meet among instructors in UiTM is meeting recordings. This function helps instructors to record all activities during the teaching and learning process as well as be able to share the recorded lessons to the learners as their references. Thus, video recordings will assist both instructor and learners to revise any lessons in a short period.

Despite the advantages of Google Meet that has been drawn into teaching and learning sessions, there are some disadvantages related to its usage especially in teaching and learning foreign languages. Learners may face some barriers such as the low signal of the internet and drained quota (Juniartini & Rasna, 2020). Internet stability is necessary for learners and instructors to achieve the best view and quality for both audio and video applications. Taken together, sufficient internet data and quota can also be

defined as an important thing to take into consideration in order to achieve a great learning experience for both instructors and learners in UiTM. Table 1.0 summarises the advantages and disadvantages of Google Meet in learning Arabic language.

Table 1: Summary of Advantages and Disadvantages Google Meet in Arabic Language Learning

Advantages	Disadvantages
Complimentary	Internet stabilization
Jamboard / whiteboard	Excess internet data
Compatible devices	
Share screen	
Large number of participants	

IMPLEMENTATION OF GOOGLE MEET IN LEARNING ARABIC VOCABULARY

In obtaining extensive Arabic vocabulary, learners are encouraged to read Arabic texts, listen to audios and memorize the root words. Once a learner has a vast Arabic vocabulary, he/she will be able to comprehend any Arabic texts easily and transform his ideas into a powerful speech. Learning a third language is an advantage for UiTM's learners especially for Arabic language learners as it is the official language of over 20 countries in the Middle East and the learners will be in high demand in the global job market.

In UiTM's Arabic text book, every chapter starts with the pictorial vocabulary, followed by the dialogues and passages as shown in pictures below.

Fig. 1 Pictorial vocabulary, dialogues and passages in Arabic text book.

By employing Google Meet, instructors and learners are able to share screens by clicking on the present now icon. They can choose to present either their entire screen or select an application window. Learners will listen carefully to the pronunciations from the instructor and will be asked to pronounce words clearly and correctly by turning on the microphone in Google Meet. Every letter in Arabic language has its articulation points otherwise known as makhraj, either from mouth or throat. The learners need to guess the meaning of words based on the pictures or context of sentences while the instructor will correct their mistakes. Meanwhile, the instructor would use the Google Jamboard to illustrate the meaning as learners will get a slight or indirect indication of words. As such, learners can channel their responses or answers through two ways, which are unmuting the microphone or typing the answers in the chat box provided whereby it is visible to other learners as well. Additionally, if there are any questions or opinions, the learners can click on the icon raise hand to allure the attention of the instructor. This will make the learning environment more interactive as it encourages two-way communication between the instructor and learners. Subsequently, Google Meet allows the instructor to present the vocabularies in PowerPoint format through share screen features and it would help learners in gaining a better understanding on how to use the vocabularies precisely.

To test the understanding of the learners and increase their engagement in virtual classes, the learning process of Arabic vocabulary will be reinforced with game-based learning platforms that could be conducted via the screen sharing function. For instance, Kahoot! Quizizz, and QuizWhizzer are just a few examples. The use of these game-based learning platforms boost the level of energy of the learners as they will feel excited while competing with each other. The experience can also be enhanced through background music available in the platforms which could be broadcast through the microphone in Google Meet as adds on to the excitement. Game-based learning can aid learners to achieve higher academic performance in Arabic language courses and increase their motivation by exploiting game-based learning (Eltahir et al., 2021). Instead of having long lectures sleepy headed, learners are divided into small groups and are given translation tasks to be completed within the prescribed time. After finishing the tasks, learners need to present their translations in Google Meet facilitated by the instructor. The intention of these activities are to encourage collaborative learning and teamwork skills among learners. The instructor also utilizes the meeting recording features offered by Google Meet as it would ease the learners for revision at any time.

In short, Google Meet is one of the cutting-edge online platforms that suit the needs of the learners in learning vocabulary amidst the global lockdown due to Covid-19 pandemic.

LEARNING THEORY ADOPTED IN LEARNING ARABIC LANGUAGE

In this section, researchers will briefly derive some learning theories that can be adopted in current study which covers the suitability and appropriateness of learning Arabic language online.

4.1 Technology Acceptance Model (TAM) theory

The rapid evolution in technology has affected many aspects in human lifestyles as well as the education system across the world. The technology adoption has demands technology savvy skills in order to fulfil some elements in educational sectors. Gopal, Singh and Aggarwal (2021) proved that students' satisfaction in online

classes has a positive effect on their perceived academic performance throughout the pandemic period. As pandemic Covid-19 hits the world, technology adoption is no longer an option instead it has become a necessity. Technology plays a vital role in all educational levels in the blink of an eye. Most higher education institutions around the world have widely adopted distance learning programs and open educational applications which involve students' engagement virtually as recommended by UNESCO. Various online platforms are used in order to functionalize teaching and learning processes and at the same time servicing students' needs.

TAM is one of the basic models that is used in this study, it is crucial to understand two determinants or underlying factors of accepting and rejecting information technology. Davis (1989) summarised it as; firstly, perceived usefulness which defined here as "the degree to which a person believes that using a particular system would enhance his or her job performance. Secondly, perceived ease of use, in contrast, refers to "the degree to which a person believes that using a particular system would be free of effort. There are various models of technology acceptance that can be employed depending on the nature of the studies (Siti Fatimah, Melor & Harwati, 2019). Tsai (2015) for example deploys TAM as course evaluation which integrates Course Management Systems (CMSs) and TAM. The studies show that most students displayed positive learning outcomes, indicating that the instruction model could contribute to the effectiveness of learning English writing. Studies also emphasize the role of student attitude, since the success of e-learning depends largely on student acceptance of the system and willingness to use it. Some studies also indicate that the employment of suitable digital tools would enrich the methods of teaching and learning which also contribute favourable impacts for the learners as well.

4.2 Community of Inquiry (CoI)

The three components (social, cognitive, and teaching) as shown in figure 2 introduced in The Community of Inquiry (CoI) are merged together in identifying the presence of learning experience in teaching and learning process. This model initiated by Garrison, Anderson and

Archer (2000) supports the idea of an active online learning community in which caters the needs for both learners and teachers as well. It manifests the interactions between learners and teachers. Many highly interactive learning models for online and blended courses among students and teachers are designed based on the CoI model (Picciano, 2017). These three dimensions have shown a plausible and meaningful learning online as it stimulates an affectionate, "real" learning environment, both self-satisfaction among students and teachers, and a sense of belonging.

The implementation of this model as suggested by Huang et.al (2020) can be carried out through various examples in learning and activities which accommodate those three dimensions in which:

1. Teaching presence: facilitate students' learning activity, provide sound and positive feedback.
2. Social presence: promotes a "real" online environment through social participation. Make use of online activities such as announcements, emails, videos comprehension. Offers a flexible time table for students and teachers to deliberate with answers and any concerns throughout the courses by using common web video conferencing tools such as Google Meet, WebEx, Zoom and Skype. Also, encourage students to share information and initiate collaborative works.
3. Cognitive presence: provide an interactive activity, experiments, simulations to support student's development on skills, thinking and even knowledge itself. Encourage diversity from multiple perspectives and points of view, promote open discussions regarding any differences that take place.

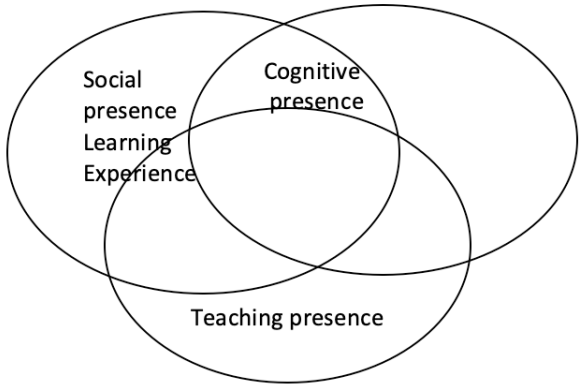

Fig. 2 Community of Inquiry Model (Garrison, Anderson & Archer, 2000)

The CoI can be positively instilled in any foreign language online learning especially Arabic language by using the Google Meet platform which offers convenient and free access options. Ironsi (2021) showcased the efficiency of Google Meet. However, many issues related to internet constraints such as unavailability of Internet data and poor Internet connection needs to be tackled. It is demonstrated that the use of Google Meet was somewhat effective as a language learning tool for the online distant program especially during this situation. In fact, students and teachers have the equal chance to create an effective interaction even though the teaching and learning process conducted virtually in this pandemic outbreak. The learning experience can make its presence assisted by any online learning platform such as video conferencing like Google Meet. This practice would definitely benefit students as they can apply their previous experience and knowledge in Arabic language skills synchronously and teachers may also highlight some linguistic errors made by students.

EFFECTS ON USING GOOGLE MEET IN LANGUAGE LEARNING

It seems that instructors and learners' acceptance in using Google Meet is positively acceptable as this application is the easiest and the most flexible one among other online learning applications. By having a google account, anyone can easily register for any other applications from google such as Google Mail, Google Meet, Google Classroom, Google Drive, Google Calendar and so on. Each and every of these applications that are available from Google were very useful and have been used by a lot of people around the world.

Evidence from previous studies that were conducted by previous researchers about students' acceptance of using Google Meet that can make learning more understanding and organized, for example a study by Ironsi (2021). Besides, the study also stated that the preservice teachers perceived the use of Google Meet as a language learning tool that enhances clarity in language teaching, stimulates understanding of lessons and collaborative learning as suggested by other studies. A study conducted by Amrizal, Zohri Hamdani (2021) also provides evidence that using Google Meet can increase students' writing skills by data analysis that were made through pre-test and post-test. Meanwhile, a study conducted by Fakhruddin (2018) showed that the use of Google Meet as the teaching media combined with the use of speaking activities and classroom English was proven to be effective to improve the students' speaking skills. Thus, from the previous studies we also can conclude that using Google Meet for learning Arabic also can be a helpful tool as it gives many positive impacts throughout the learning process.

Google Meet provides many user-friendly features that can help students to learn language easily. As we know, there are senior lecturers or teachers that struggle every day to cope with the new technologies in teaching because they are familiar with the traditional "chalk and talk" method. Thus, by using Google Meet that was easy to handle and flexible to interact with, it gives a positive impact to instructors and students. Among the Google Meet's free features are an unlimited number of meetings. It allows the instructor to conduct as many classes as they want. After that, live captioning during meetings also will help students to get the captions on the screen when the instructor starts to talk, it will appear on screen and it works like subtitles

in movies which aids the note taking process of students during lessons. In addition, Google Meet also possesses the live meeting recording function. The instructor can provide the recorded videos for students, and this is very helpful for students to do revision.

Furthermore, other features such as video and audio preview screen, screen sharing with participants and messaging with participants also provide an interactive learning environment for students. Not only instructors can share their materials, but students also can share their materials during the teaching and learning process. Besides, this application also can be used by smartphones, tablets and laptops at any time and anywhere. All of these features are very helpful in language learning and the further explanations about the implementations of Google Meet in learning Arabic vocabulary were explained precisely at part three of this paper.

CONCLUSION

In summary, this study shows the advantages and disadvantages of using Google Meet in language learning. Besides, this study also emphasizes the role of Google Meet as an ODL platform in learning Arabic language in UiTM, since the success of online learning depends on acceptance of the system and the willingness to use it. Hence, Google Meet is considered as one the best alternative for online learning during this pandemic outbreak. Google Meet can be considered as the easiest and famous application as it has several advantages and it's user-friendliness. It is recommended to conduct further research and investigation by collecting qualitative and quantitative data. Thus, it would be interesting to include respondents from students, teachers or instructors and assess other aspects of languages such as skills (listening, reading, writing and speaking) and motivation.

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Measuring Quality of Experiences towards Open and Distance Learning Implementation among Computer Science Students

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Abstract: The emergence of COVID-19 pandemic has caused a huge impact to all sectors in the world since its first hit at the end of the year 2019. One of the sectors that has been experiencing major changes due to this pandemic is the education sector as face-to-face teaching and learning has switched to a fully online and distance approach to accommodate the continuity of previous practices in making the objectives achievable. The implementation of open and distance learning (ODL) during the first semester raised various perceptions from both students and lecturers as many factors needed to be considered to ensure the sessions meet the lesson objectives. Therefore, this study aims to investigate the quality of experiences towards ODL among computer science students by assessing three major factors; learning materials in ODL, platforms being used, and the delivery methods used during ODL. Using an empirical approach where responses from students were collected using a structured questionnaire, the analyzed data then contributed new discoveries to this study. The result from the analyzed data

shows that students have gotten excellent and good quality of experiences during the implementation of ODL.

Keywords: Open and Distance Learning, quality of experience, computer science students, online teaching platform, ODL delivery

INTRODUCTION

The implementation of Movement Controlled Order (MCO) in Malaysia started in March 2020. MCO has affected many sectors as it has changed the daily routines of many. Limited face-to-face events and activities were allowed in order to prevent the spread of the COVID-19 virus. In the education sector, specifically for higher education institutions, online learning has been one of teaching and learning approaches that has been used for the past years but the implementation of MCO in Malaysia provides the opportunity for universities to strengthen the strategies being used and to ensure the continuity of the teaching and learning processes. In pursuing activities for the teaching and learning processes, lecturers need to know the experiences of the students during the implementation of ODL for the purpose of enhancing the quality of the new approach. Hence, this study was carried out to investigate the quality of experiences among the students towards the ODL implementation. The study also highlighted three factors that contributed to the quality of experiences for ODL; the learning materials provided, the platforms chosen for the execution, and the quality of the delivery method used in each session conducted.

OPEN AND DISTANCE LEARNING AND QUALITY OF EXPERIENCE

Before the outbreak of the COVID-19 pandemic, higher education institutions in Malaysia has already adopted an online learning approach either in combinations of face to face and online learning called blended learning or fully online learning which was specifically designed to accommodate distance learners. However, as the pandemic hits all countries, open and distance learning is fully employed to replace the traditional face to face approach thus giving new perspectives to lecturers and students in pursuing teaching and learning activities. Some universities face difficulties

in navigating and preparing the course and program to cater the distance education (Fidalgo et al, 2020). In UiTM, proper plans and strategies involving the university management and the lecturers were carried out to successfully accommodate the new teaching and learning approach while following the guidelines set by the government during the execution of MCO in Malaysia. To make the ODL more feasible, a variety of online platforms and tools are being introduced and explored to fulfil the needs and requirements of the programs and courses offered in UiTM.

2.1 ODL Platforms

ODL platforms are being utilized since they offer settings to conduct online sessions, to provide learning materials, to monitor students participation and to keep track of students' progress (Maqableh & Alia, 2021). A previous study by Hapompwe et al in 2021 highlighted two dominant categories of platforms being used as online learning tools during the Covid-19 pandemic; video conferencing platforms and Learning Management System (LMS) platforms. Video conferencing platforms such as Google Meet and Zoom offer students an interactive environment that is similar to face-to face sessions. However, it is subject to whether or not students have good devices and Internet connection while LMS gives a comprehensive learning environment with features such as content management and the ability to conduct discussions, online learning activities and collaborative-groupings among its users (Bradley, 2021). Another common online interactive platform being discussed in other studies is Microsoft Teams which provides live lectures and tutorial sessions as students get prompt and immediate clarification of the topics being discussed (Yuan, 2021).

The utilization of online commercial communication platforms are also accepted due to students' familiarity of using mobile applications such as WhatsApp and Telegram (Jones & Chacko, 2021). A research conducted by Saidi R.M et al in 2021 revealed that 81% of the respondents of their study felt comfortable and preferred WhatsApp as an ODL platform. The study involved 485 students and 74% of them were from science and technology streams. The utilization of commercial communication platforms to support ODL gives benefits to the approach as the platforms are not only easily accessed and user-

friendly, they also provide real-time responses in communication, yet they are more affordable compared to other online learning platforms (Wulandari et al, 2021). Other advantages offered by commercial communication platforms such as WhatsApp and Telegram are that the information about the learning materials provided by the lecturers are immediately noticeable by students. It is a suitable online discussion platform for groupworks among students as it can be accessed using mobile devices, and a convenient platform to share educational materials (Shobeiry, 2021).

For ODL implementation in UiTM, there are no restrictions on the choices of platforms as lecturers are encouraged to use any online platforms they deem suitable to carry out the teaching and learning activities as long as the learning outcomes are achieved and students get equal access to the platform chosen by their lecturers. As for this study, we had conducted ODL using Google Classroom and Google Meet to establish the ODL implementation. Figure 2.1 illustrates the ODL implementation using the platforms. The implementation of the courses which is Computer Organization and Programming Paradigm in Google Classroom is illustrated in Figure 2.2. In order to ensure the delivery of the ODL for courses, Google Meet has been used in this study and illustrated as in Figure 2.3. Google Classroom and Google Meet are selected for the ODL implementation as this platform provides a flexible platform to store and effectively manage the data, materials, assessments purposely for the ODL implementation.

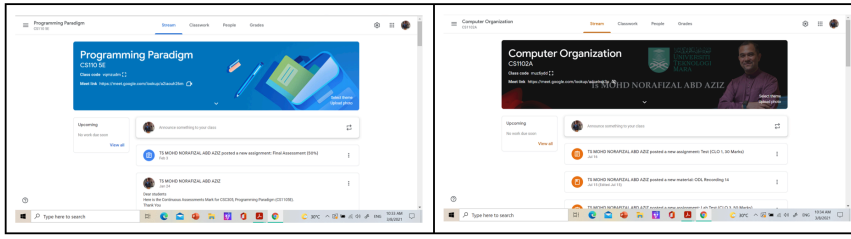

Fig. 1 The ODL platform for courses using Google Classroom

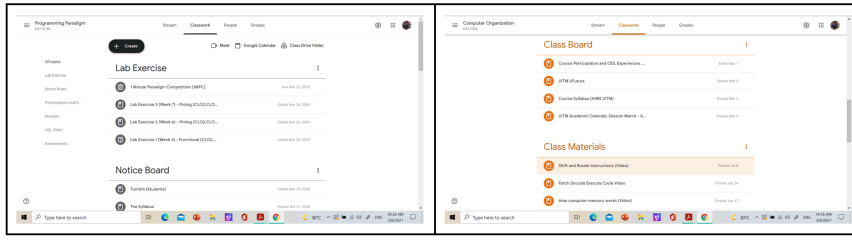

Fig. 2 The ODL contents for Programming Paradigm and Computer Organization course

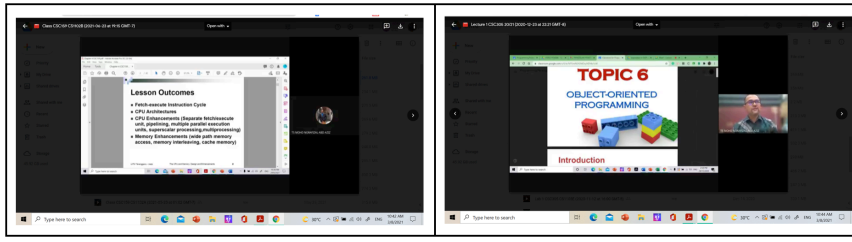

Fig. 3 The ODL delivery in Google Meet

2.2 Quality of Experience

Quality of experience is an analysis of human experience of cooperating with technology and business point of view which will lead to improvement of performance such as effectiveness, efficiency and satisfaction towards the usage of approaches or products being used (Memon et al, 2021). The experience of students while learning online is different compared to the predictable traditional face to face classroom approach (Maqableh & Alia, 2021).

Three factors influencing the quality of online teaching materials were being discussed to improve the students' experiences. The factors are the availability of pre-recorded videos provided by lecturers, technical quality of audio and video used, and accessibility of the learning materials via mobile devices (Jones & Chacko, 2021). The study also revealed that synchronous instructions provided by the lecturers are able to engage students compared to asynchronous instructions as the students prefer to have interactive learning sessions as compared to depending on the pre-recorded lectures prepared by the lecturers. However, result shows that there were positive feedback

from students towards the usage of pre-recorded videos as they found that good selection of contents, interesting and engaging videos can successfully convey lessons thus increasing students' motivation to continue watching (Yuan, 2021).

In accommodating students with a conducive online learning environment, there is no doubt that lecturers are facing a variety of challenges to make sure the learning activities carried out are as effective as traditional face to face sessions. A study was conducted to reveal the challenges faced by students to give clear perspective to lecturers in identifying the weaknesses of online sessions. Four common challenges faced by students are the unreliable internet connection, lack of skills in using online platforms, an unconducive learning environment at home, and the difficulties to access online learning platforms via mobile devices (Şenol, Lesinger, & Çağlar 2021). Two progressive actions taken by the lecturers to improve the situation were by selecting suitable online platforms to be used and adjusting the duration of the lesson module to approximately 20 to 25 minutes per session to retain students' engagement and focus.

By identifying the factors that affected students' quality of experiences and the challenges faced by both lecturers and students, major improvements could be made to enhance the quality of experiences towards ODL implementation in higher education institutions. This also indicates the importance of collecting responses from students as the experiences of the students vary from one another and it will aid in determining future improvements. Other than that, challenges of ODL implementation may vary according to the pandemic situation in Malaysia and all over the world.

METHODOLOGY

This study adopted the quantitative methodology where a self-examined questionnaire was used to assess students' experiences. This study was conducted during the second semester of ODL implementation using structured questionnaires and distributed to students after each ODL session ended from Week 1 to Week 14 of the semester. The data were gathered using Google Form and then being analyzed using Microsoft Excel as

shown in Fig.4 . The questionnaire set consists of three (3) sections; demographics information, ODL session and platforms with the experiences in various ODL implementation factors, and a section to evaluate students' learning outcomes for the particular sessions of ODL implementation. The demographics information includes the group information, type of ODL session, and platform used during the ODL implementation. The quality of experiences factors includes learning materials, the assessments provided, the leading platform used, and the other platform available for the ODL session, and followed by the delivery perspectives. In addition, these questionnaires also seek for the experiences on the network that support the ODL, including the connection availability, coverage, delay time, and faulty, which were also crucial to be determined. Students also provided feedback on the device's capabilities in supporting the ODL session, the cost, and online resources as well. The ODL also includes other resources available as the ODL will be implemented as flexible as it is for resource sharing, which may help the ODL implementation. The experiences data were collected in two semesters from the different parts of students taking the Diploma in Computer Science in UiTM Pahang, Raub campus.

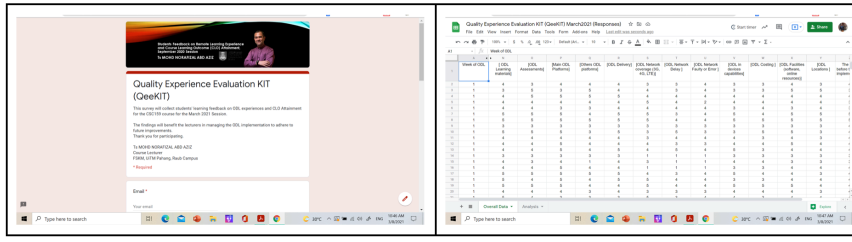

Fig. 4 Questionnaires as in Google Form and Google Sheet to store the data set

RESULT AND DISCUSSION

1332 responses from 137 students from the Diploma of Computer Science enrolled in the Computer Organization and Programming Paradigm course were collected in this study at the end of every ODL session conducted. The Computer Organization course is offered to students in Year 1, while the Programming Paradigm course is enrolled by students who are in their Final Year. Fig.5 depicts the percentage of students for each course.

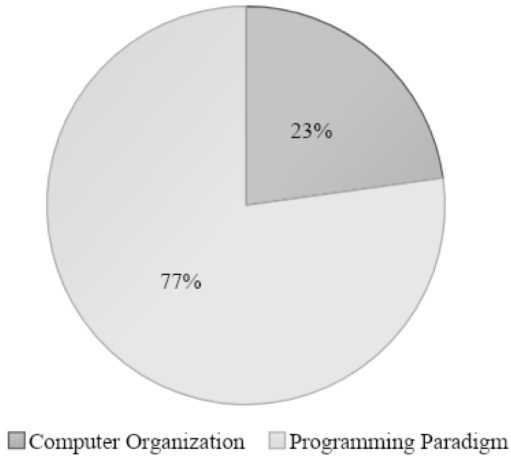

Fig. 5 Percentage of responses for each course

Students' Quality of Experiences towards ODL Learning Materials

The first factor that was evaluated is the quality of experiences towards ODL learning materials available at the platform being used by the lecturers. Learning materials in these courses are in Microsoft PowerPoint notes, lecture videos created by the lecturers, online worksheets for tutorial sessions, and the discussion boards to provide interactivity between students and lecturers.

Table 1. Quality of Experiences towards ODL Learning Materials

	Percentage				
	Unsatisfactory	Less than Satisfactory	Satisfactory	Good	Excellent
Please indicate your experiences for the following ODL implementation factors [ODL Learning Materials]	0.08%	0.45%	15.39%	54.35%	29.73%

The analysis from the responses collected in Table 1 conclude that 54.35% and 29.73% students were having good and excellent experiences respectively towards the ODL learning materials provided by their lecturers in these courses. These findings show that 84.08% of the responses are positive feedback on the selection of modules offered in the platforms since both courses are a combination of theoretical and lab practices to achieve

the course learning outcomes.

Students' Quality of Experiences towards ODL Platforms Used

Main platforms being used by students during ODL implementation in this study is Google Classroom which provides content sharing and learning activities while Google Meet serves as main video conferencing tools to support real-time interactivity between students and lecturers as shown in Figure 2.3. Other platforms such as UiTM Learning Management System (LMS); uFuture and UiTM MOOC, Whatsapp, Telegram, Youtube and a few web-based programming software were also being utilized to support the teaching and learning activities.

Table 2. Quality of Experiences towards ODL Platforms Used

	Percentage				
	Unsatisfactory	Less than Satisfactory	Satisfactory	Good	Excellent
Please indicate your experiences for the following ODL implementation factors [ODL Platforms]	0.08%	0.15%	15.32%	53.90%	30.56%

Table 2 shows that 53.90% and 30.56% of the total responses falls under the category of good and excellent which means that the students have positive experiences while using the ODL platforms selected for the ODL sessions. A few platforms were utilized for these courses to suit the lesson outcomes for each session, for examples lecture videos posted on the Google Classroom and the university's LMS for theoretical sessions, micro-videos created by lecturers and some are taken from YouTube for programming activities and web-based programming software to allow students to do hands-on practices for lab sessions and tutorials. Lecturers also use Google Meet to conduct real-time lecture sessions which enable students to communicate directly with lecturers and classmates. Table 3 shows the quality of experience based on the main platforms used for ODL sessions.

Table 3. Quality of Experiences based on Main ODL Platforms Used

	Percentage				
	Unsatisfactory	Less than Satisfactory	Satisfactory	Good	Excellent
Google Meet	0.08%	0.08%	7.13%	27.85%	17.49%
Google Classroom	0.00%	0.08%	7.36%	24.47%	12.61%
WhatsApp	0.00%	0.00%	0.68%	1.28%	0.38%
UiTM LMS (uFuture)	0.00%	0.00%	0.00%	0.08%	0.08%
UiTM MOOC	0.00%	0.00%	0.15%	0.00%	0.00%
Other	0.00%	0.00%	0.00%	0.23%	0.00%

Students' Quality of Experiences towards ODL Delivery

The ODL will emphasize more on the instructors' delivery, which is dependent on the instructors. However, the network's limitations, coverage, and other factors have affected the effectiveness of the ODL implementation. There are differences in delivery for different subjects, such as the technological and non-technical in the ODL to the interest of the ODL (Mathew et al., 2021), differences between the subject perspectives and the contents of the subjects taught. Therefore, it is essential to investigate the delivery from the experiences of the students' for the instructors to improve or at least improvised the teaching delivery method in the ODL implementation, which may be different from the traditional implementation before the pandemic.

Table 4. Quality of Experiences towards ODL Delivery

	Percentage				
	Unsatisfactory	Less than Satisfactory	Satisfactory	Good	Excellent
Please indicate your experiences for the following ODL implementation factors [ODL Delivery]	0.30%	0.53%	15.47%	53.15%	30.56%

Table 4 indicates the quality of experiences towards the ODL delivery. The result displays 53.15% and 30.56% of total responses indicates that respondents are experiencing good and excellent experience in the ODL session being conducted. These results also revealed that more than 99% of responses were recorded at satisfactory level and above which concludes that ODL is easy and accessible.

LIMITATIONS AND RECOMMENDATION

There are a total of three study limitations that have been identified throughout this study . The limitations are categorized as limited access to data, time constraints and conflicts arising from personal preferences. Since this study uses data collected from students, it is hard to ensure that all students responded to the survey within a certain time frame. This has impacted the study findings as the researchers have limited access to the data. The second limitation is time constraints. The time available to study a research problem is limited as study was conducted during an active semester which means researchers are involved in classes and other administrative tasks. Other than that, data collection needs to be conducted during an active semester in which students are packed with classes, assignments, tests and others. In terms of personal preference, the study faced limitations as students might be biased due to personal preference of ODL platforms even before answering the survey. This might be due to past experiences or external information (reading, hearsay and others). Responding to the limitations discussed, recommendations are proposed. It is recommended for future studies to ensure that all respondents chosen answers the survey questions of the study. This will impact the accuracy of findings presented. Surveys should also be conducted in a larger sample size from different backgrounds as it will contribute to more conclusive results. Besides that, a larger and diversified sample size will also ensure a diverse quality of experiences among students.

CONCLUSION

Global education systems are affected by the COVID-19 pandemic. Shifting from the traditional face to face approach to an open and distance approach was made compulsory to all higher education institutions. Both students and lecturers have encountered challenges due to the sudden shift but as the time goes by, the adaptation of the new approach is gradually improved. The results from this study provides benefits to lecturers in improving students' quality of experience towards ODL implementation. The findings also revealed the suitable platforms for conducting computer science courses which consist of theoretical and lab sessions and tutorials so that the course learning outcomes could be achieved. Based on the data analyzed, students show good and excellent experience on the usage of Google Classroom and

Google Meet which are deployed as the combination of synchronous and asynchronous delivery of ODL sessions.

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Assessing Padlet for Management Information Systems course during Open and Distance Learning

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Abstract: Open and distance learning (ODL) has been used in most higher education institutions in Malaysia and abroad since the Covid-19 outbreak. The learning process must continue, and engaging students is vital in the teaching and learning process. Thus, technologies are on the verge of this situation to substitute traditional face-to-face classes with virtual classrooms. Students and lecturers are the main stakeholders where they need to be mutually connected. For the Management Information Systems course, in particular, the learning environment must be engaging and fun. Therefore, this study proposes Padlet as a learning tool for a comprehensive learning experience that is suitable for both synchronous and asynchronous teaching and learning. This study seeks to examine the usability of Padlet in teaching and learning. It also investigates students' experience when they use Padlet for learning. The nature of Padlet itself offers interesting and fun learning. Based on the survey conducted among students enrolling in this course, Padlet appears to be engaging, interesting, and easy to use as it provides a shorter and quicker way to access learning materials. Its simplicity offers a great way for teachers and students to collaborate.

Keywords: Blended Learning, Open and Distance Learning, Management Information System, Padlet, Usability.

INTRODUCTION

Open and distance learning (ODL) is the term used to describe the teaching and learning process that utilizes and relies on Information and Communication Technology (ICT), as opposed to conventional, face-to-face learning. ODL has been fully implemented since March 2020 for most tertiary institutions in Malaysia when the world is battling against the virulent Covid-19 pandemic. This phenomenon has created a new perspective where the use of technology is inevitable. Technology is the only way that allows lecturers and students to stay connected.

Prior to ODL, lecturers have been conducting blended learning (BL) as part of curriculum delivery in every academic semester. Blended learning has been defined differently by many scholars (Hrastinski, 2019). The implementation of blended learning can be done in many ways for as long as it uses ICT platforms to accomplish objectives of learning. Ideally, BL provides students with some leeway in education, rather than experiencing tight and rigid processes in learning. As for the Management Information Systems (MIS) course offered in all FSPPP programs in UiTM Negeri Sembilan, Kampus Seremban, blended learning was implemented in such a way that students were given tasks or assignments based on a particular chapter from the entire syllabus. Pizzi (2014) suggests that BL requires flipped classrooms as in fifty percent face-to-face meetings while the remaining are self-instructed learning. However, the fifty percent physical meetings will no longer be possible under the pandemic situation. Hence, ODL has taken over the system temporarily.

There are various platforms that can be used in ODL, depending on the suitability of the course taught. However, if too many platforms are used at the same time it might be overwhelming to the students and it is hard to manage as well. Online course materials can be hosted in one "place" for easy accessibility, and this helps achieve both asynchronous and synchronous learning. Besides, a learning process requires an environment where lecturers can contribute, and students can absorb the knowledge altogether (Hunt, 2005). Therefore, this study proposes Padlet as a learning tool for comprehensive learning experience as it is suitable for both synchronous and asynchronous teaching and learning particularly for the MIS course. This study seeks to examine the usability of Padlet in the MIS

course teaching and learning, as well as to assess students' satisfaction while using Padlet for learning. It also gathers students' experience when they are using Padlet. Based on a small survey conducted with students enrolling the course, Padlet appears to be engaging (Lowe & Humphrey, 2018), interesting and easy to use as it provides a shorter and quicker way to access learning materials. Its simplicity offers a great way for teachers and students to collaborate with each other.

The remaining sections of this study are organised as follows. Section 2 provides available online tools for teaching and learning, followed by the concept and features of Padlet in the existing literature and Padlet used in the MIS course. Section 3 discusses the methods used to achieve the research objectives. Section 4 explains the findings and outcomes of this research. This paper concludes in Section 5.

ONLINE TOOLS FOR TEACHING AND LEARNING

There are many established and non-established teaching tools available for online teaching. The tools have been introduced in the education sector for a period of time and are used under situations when both learners and educators are unable to have face-to-face meetings. The whole idea is to supplement conventional ways of teaching. However, as the global pandemic looms, education sectors are left with no other choice than to make full use of these tools.

This section entails mostly about online tools and its usability in general where these tools are categorized as Learning Management Systems (LMS) that are dynamic and are widely used by the new generation (Martins et al., 2019). Most online tools are acceptable, and lecturers pick the most suitable platform within the course nature to help them with their teaching processes. Choosing wrong tools will end up with disappointed students (Bettinger, Fox, Loeb, & Taylor, 2017. Therefore, it is important to adapt the right tools at everybody's disposal so that no one is left behind and learning can be fun and engaging. Ideally, the suitability will be depending on the mode of online learning including synchronous and asynchronous learning.

Online learning can be categorised as synchronous and asynchronous eLearning. Asynchronous means students' learning is beyond class hour

without direct interaction with teachers. Synchronous on the other hand provides real-time online classes instructed by teachers, assisted by suitable communication tools. Table 1 tabulates supported communication tools available for both online learning (Lim, 2017).

Table 1 Mode of online learning and communication tools (Lim, 2017)

Communication Tools	Synchronous Learning	Synchronous Learning
Video conferencing	Yes	No
Web conferencing	Yes	No
Audio conferencing	Yes	No
Live chat	Yes	No
White boarding	Yes	No
Application sharing	Yes	No
Discussion forum	No	Yes
Web logs	No	Yes
e-mail messaging	No	Yes
Social media messaging	No	Yes

Each communication tool has its own usability and limitations. Lim (2017) analyses usability and limitations for each tool used for synchronous and asynchronous mode. Generally, communication tools used for synchronous learning mode imitates traditional classrooms where learning is guided between teachers and students which makes it interactive. In addition, it allows students to engage and participate (Lim, 2017). Through the use of communication tools students feel a real sense of belonging in the classroom (Hrastinski, 2019) as compared to asynchronous lessons. However, it is not an easy task when managing a large group of students, especially when there are technical failures during real-time sessions (Lim, 2017).

2.1 Padlet

Padlet is a Web 2.0 tool widely used in teaching and learning. It's a free online tool that supports open and distance learning (ODL), and it provides a platform for lecturers to share class materials as well. The platform is useful for brainstorming ideas and sharing opinions on various topics. Padlet is portrayed as 'Padlet: You are beautiful' as its concept and usage are very simple and straightforward. As simple as its name is, Padlet can be seen as a collaborative software for everyone to share their contents (Sese, 2021), digital 'post-it-notes' (Ellis, 2015)

and a virtual wall (Luftova, 2015).

There are many features of Padlet for lecturers to choose from - online bulletin board, wall, canvas, etc., where lecturers can create a wall with so much information about teaching course such as ideas, images, videos, links, and documents and collaborate by sharing with their students (Edwards, 2020). This wall will then provide a one-stop kiosk for classroom discussion. Sharing collection of course materials with students in a single platform would help them manage a course better, compared to having multiple platforms at the same time. Students can simply click the Padlet link provided by their lecturer, and they can immediately begin to collaborate during lecture (Ellis, 2015). Padlet helps improve students' engagement in the classroom and it is suitable for synchronous and asynchronous eLearning (Ellis, 2015), while Anwar, Nugroho, & Nurhamidah (2019) suggests that Padlet can be effective for all types of courses.

2.2 Padlet and Management Information Systems (MIS)

Management Information Systems is one of the Information and Communication Technology (ICT) courses offered for students at the Faculty of Administrative Science & Policy Studies, Universiti Teknologi MARA. This course consists of nine chapters altogether, covering basic concepts and theories of information systems (IS) in organisation, including the implementation of IS in daily activities such as ethical and social issues, telecommunication, and ecommerce. Students are provided with lecture slides for each chapter and other supporting materials such as video clips and additional notes. The nature of open and distance learning (ODL) requires lecturers to give instructions prior to or during online lectures.

For MIS, students will normally be given a meeting link beforehand, and lectures are conducted on a weekly basis for approximately fourteen weeks. Most lectures and 'meetings' with students are arranged based on the timetable set for the lecturers, albeit ODL. The session can sometimes be "boring" (Ellis, 2015), when the lecturers give lectures alone, hardly any interaction with students. It's difficult to measure students' understanding in an entirely virtual atmosphere.

However, lecturers become more creative by utilising various teaching approaches that fit ODL. Lectures can be conducted synchronously and asynchronously, beyond allocated class hours to avoid students feeling in "isolation" (Lowe & Humphrey, 2018).

2.2.1 Arrangement of MIS contents in Padlet

Padlet (www.padlet.com) offers various templates to choose from which include wall, stream, grid, shelf, map, canvas, and timeline. Fig. 1 shows the templates that can be used before a Padlet is created.

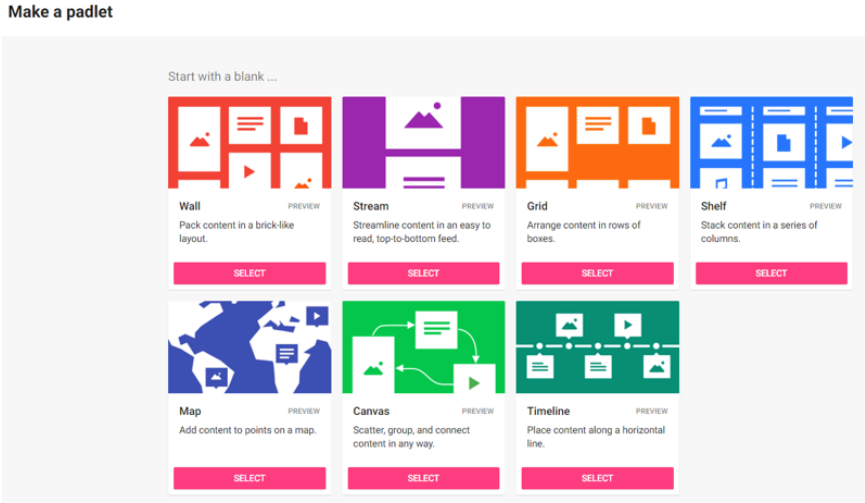

Fig. 1 Padlet template (www.padlet.com)

Choosing the right template and arranging the contents is very important so that it creates a more lively atmosphere for ODL teaching and learning. Lecturers can include three padlets for free in a dashboard, technically meant for a single email account as shown in Fig. 2. The MIS course uses the shelf template that are arranged in multiple column shelves, ideally for all nine chapters. Each column in this template represents each chapter with contents stacked together. Fig. 3 shows the arrangement of the MIS course chapters and its contents. Slides can be included,

video clips can be attached, and discussions can be done by enabling the comment feature in the setting option.

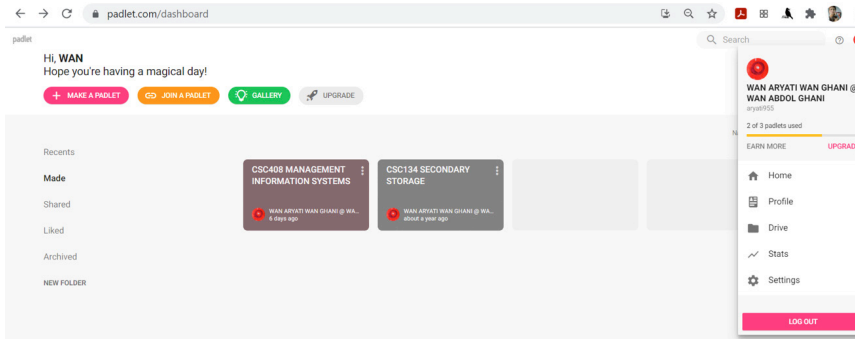

Fig. 2 A user dashboard in Padlet

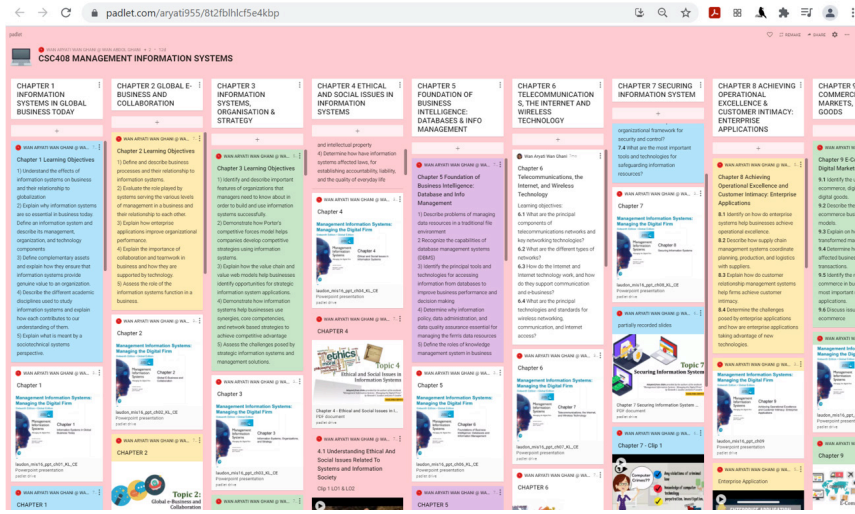

Fig. 3 Chapters and contents arrangement in the MIS course Padlet

Besides the course materials, tutorials and class projects can also be added in the same Padlet and it allows students to post and start a discussion among their fellow classmates. This tool would encourage mutual interaction (Ellis, 2015; Lim, 2017; Lowe & Humphrey, 2018) among students-to-students, and lecturer-to-students and vice versa.

RESEARCH METHOD

A survey was conducted among students enrolling in the Management Information Systems course for the academic year March – August 2021. There were a total of 49 students who participated in this survey including male and female students from AM225 Bachelor of Corporate Administration and AM226 Bachelor of Environmental Administration. Two separate tools that were used for the survey are Google Form and Poll Everywhere to achieve the respective objectives. The first objective is to examine the usability of Padlet towards learning engagement and the second is to gather students' experience when they use Padlet.

3.1 Google Form survey

The first objective seeks to examine the usability of Padlet in terms of its effectiveness. It also seeks to look at students' satisfaction. A Likert scale four-point scale was used to allow the students to express how they associate the effectiveness of Padlet against its usability, namely Very Ineffective, Ineffective, Effective and Very Effective. The usability of Padlet for the MIS course is measured in four major areas: Easy to Understand, Easy to Learn, Easy to Operate as in user-friendly, and Attractive.

Besides the usability of Padlet, this study also seeks to measure students' level of satisfaction when they use Padlet. The level of satisfaction was represented with a five-point Likert scale. Generally, the scale was represented as: Very Satisfied, Satisfied, Neither Satisfied nor Dissatisfied, Dissatisfied, and Very Dissatisfied.

3.2 Poll survey

The second objective attempts to shed light on students' experience when they use Padlet for learning. An open-ended survey was conducted using Poll Everywhere, where students were asked to answer three simple open-ended questions related to experiencing learning the Management Information Systems course using Padlet in their studies.

The three open-ended questions were posted in Poll Everywhere for students to answer freely without any limitations. The website generated a link to be shared with the students before they can attempt the survey. The survey took place in week 13 where the students had completed all chapters in this academic semester. The open-ended questions asked are listed as follow:

i. Please leave your feedback regarding Padlet as one of the learning tools used in MIS course.
ii. What do you think about the arrangement of course material in Padlet?
iii. Share your experience when you use Padlet to do revision/study MIS course, and what do you like the most about Padlet?

FINDINGS

Following the data analysis is based on the survey data collection, the results and discussion are presented as below.

4.1 Demographic

This study was conducted among 49 students who enrolled in the Management Information Systems course. There were 22 students and 27 students from the AM225 and AM228 program respectively. From the analysis, students who participated in this survey are mostly female students with a total of 39 and only 10 male students participated in this survey. Fig. 4 shows the participants' demographic.

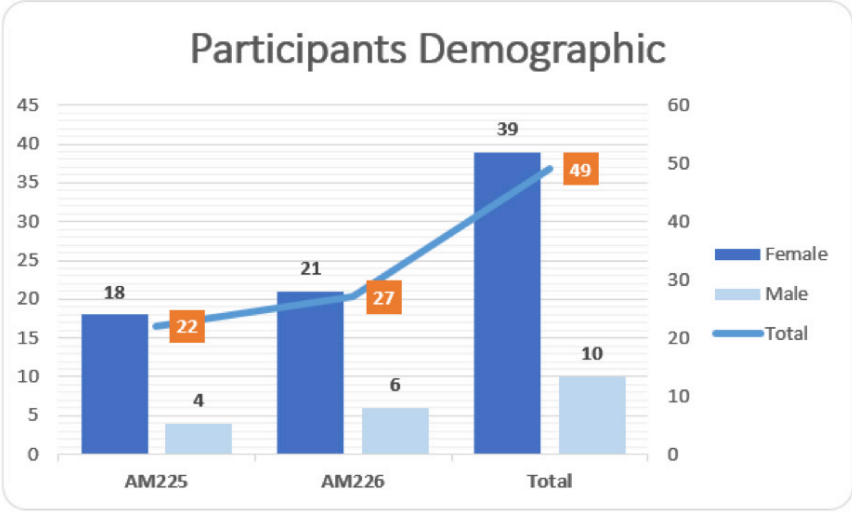

Fig. 4 Participant Demographic

4.2 Padlet Usability in Teaching and Learning

This section discusses the findings from the Google form questionnaire regarding Padlet's usability in the MIS course. Based on the data analysis, the use of Padlet in the MIS course teaching and learning shows positive feedback among the majority of the students. Based on the descriptive analysis, the result shows students perceived usability of Padlet as generally effective. All students were able to understand the course contents for the chapters presented in the Padlet even better, on top of what they obtained from real-time online lectures. Similarly, the results for the easy to learn statement shows 100% effectiveness. Out of 49 participants, only 2.04% of the students perceived Padlet as ineffective for the statement Easy to Operate and Attractive respectively. The rest of the students showed highly positive feedback as 97.95% of the students perceived Padlet as user-friendly and attractive.

Level of Effectiveness/Padlet Attributes	Very Ineffective	Ineffective	Effective	Very Effective	*Mean*
Easy to understand	0	0	38.78%	61.22%	*3.61*
Easy to learn	0	0	42.86%	57.14%	*3.57*
Easy to operate as in user-friendly	0	2.04%	36.73%	61.22%	*3.59*
Attractive	0	2.04%	40.82%	57.14%	*3.55*

Table 2 tabulates the analysis which regards Padlet usability in the MIS course teaching and learning. Overall, the result suggests that the usability of Padlet is generally effective.

4.3 Satisfaction on the use of Padlet for the MIS

Other than the usability of Padlet in the MIS course, this study also seeks to assess students' satisfaction when they use Padlet. Likewise, the result shows that 63.27% of the students are very satisfied when they use this tool, while 26.73% are satisfied.

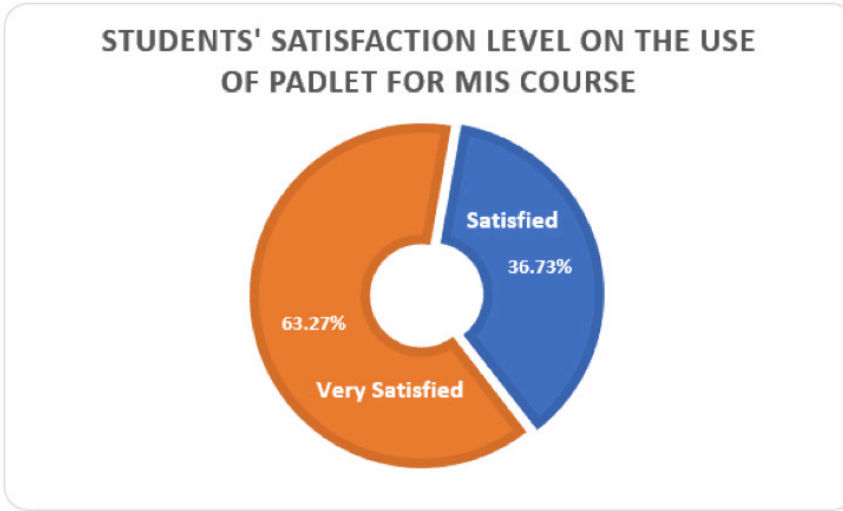

Fig. 5 Students' satisfaction on Padlet usage.

Overall, all students are happy with the use of Padlet in the MIS course as it basically complements real-time online lectures. This shows that Padlet could benefit students for both synchronous and asynchronous learning.

4.4 Students' Experience using Padlet

There were 21 students who participated in this survey. The three open-ended questions as seen in Fig. 6, were analysed using a word cloud generator within the Poll Everywhere setting. Based on the responses from all of the participants, the study generated three representations of visual word frequency.

This survey started by asking the students to leave their feedback regarding Padlet as one of the learning tools used in the MIS course. The word cloud analysis shows that students' feedback were positive as there were no negative words appearing in the word's frequency. This would indirectly shed some light on students' experience when they use the Padlet tool in their learning process.

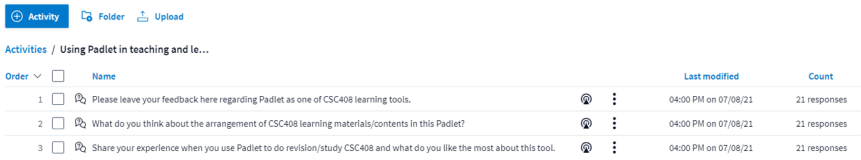

Fig. 6 The three open-ended questions posted on Poll Everywhere

The second question asked in this online poll survey was about the arrangement of the course materials in Padlet, which can be indirectly related to students' experience when they navigated through the Padlet. Poll Everywhere generated a word cloud based on this question. The word that has the highest frequency is 'organised' and 'easy'. It illustrates that the students have no problem when they use the Padlet to study the course.

The third word cloud presented in Fig. 7 is associated with the last part of this open-ended survey. It specifically asked the students to share their experience when they used the Padlet to do revision, and

what they like the most about this tool. It appears that 'interesting' makes the best out of other words.

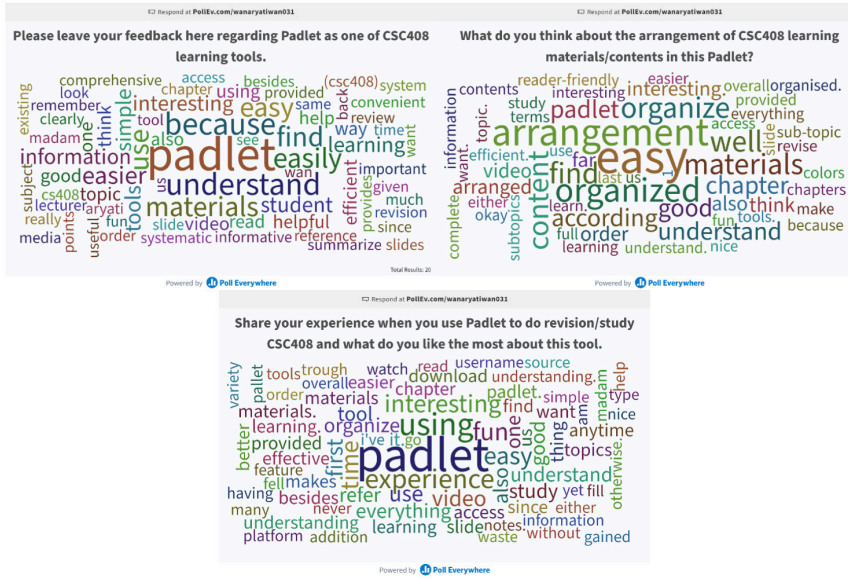

Fig. 7 Word Clouds – Visual Representation of Students' Experience when using Padlet

From the feedback generated, this survey can profoundly describe how the students used Padlet in the MIS course to the great extent throughout the academic semester. Overall, the word frequency orchestrated in the word cloud as shown in Fig.7 could clarify that the students have had a great experience when they utilised Padlet in studying the course as they could find a collection of learning resources materials in one place.

CONCLUSIONS

In view of all that has been mentioned in the previous section, it can be concluded that Padlet offers a great way to supplement ODL teaching and learning the Management Information Systems course. Asynchronous online meetings might not be a hundred percent effective (Iyer & Chapman, 2021). Considering its usability and knowing the fact that the students are

satisfied, Padlet would provide a better way to support both synchronous and asynchronous eLearning.

In addition, this study findings corroborate the ideas of Ellis, (2015); Fuchs, (2014); Lowe & Humphrey, (2018), who suggested that Padlet appears to be engaging, interesting and easy to use as it provides a shorter and quicker way to access learning materials. Interestingly, the students had a great experience navigating these entire chapters in a Padlet as its simplicity offers a great way for teacher and students to collaborate with each other.

The current findings add to a growing body of literature on Padlet in general. However, further research regarding the use of Padlet would be worthwhile and interesting if this study could be expanded in many other disciplines beyond the social science program.

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Digital Storytelling as a Pedagogical Tool for Enhanced Learner Engagement

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Abstract: This article provides an overview of Digital Storytelling as an instructional tool in the language classroom. Digital Storytelling as an educational tool can be very engaging as students can learn and practice their language skills. Additionally, Digital Storytelling targets both spoken and written language production through the iterative stages which are brainstorming, storyboarding, scriptwriting, rehearsing and presenting. Language teachers can adapt Digital Storytelling to be an instructional tool at every level since the complexity of the task can be modified through the story being told, and the language difficulty. The underpinning framework in Digital Storytelling is multimodal literacy which dictates technological advancement in digital media and mobile technology has led to the empowerment of students in multitasking aptitude. Similarly, in relation to Digital Storytelling, the iterative processes between the five stages empowers students in multimodal literacy. In the creation of digital stories, students will generally go through these processes: brainstorming, storyboarding, scriptwriting, rehearsing and presenting. These processes are valuable to the learning experiences of students, especially in enhancing their spoken and written language skills. Hence, as an educational and instructional tool, Digital Storytelling can be an adaptable and entertaining approach that can help students to enjoy the language learning process.

Keywords: Multimodal literacy, constructivist, Digital Storytelling, English as a Second Language (ESL).

A CONSTRUCTIVIST APPROACH TO LANGUAGE LEARNING

There are two dimensions in Constructivism. The first is the epistemological domain which contributed to the theory on knowledge and pedagogy (Mcnichols, 1999). The epistemological domain denoted acquisition and the source of knowledge, while pedagogy also included the instructional theories. The approach in the present research was also consistent with how constructivism relates to student-centred, collaborative, and authentic learning (Kwan & Wong, 2015).

The constructivist outlook is considered as the most apt for this study as it stimulated reasoning, self-regulation and learner reflection, critical thinking, and knowledge application (Driscoll & Burner, 2005; Kwan & Wong, 2015). According to the theory of Zone of Proximal Development, higher order thinking is initiated by social activities and social interactions, found in social situations (Vygotsky, 1978 in McLeod, 2015).

In the classroom, a constructivist learning environment would place emphasis on social negotiations that is crucial in the development of students' critical thinking. To illustrate, in social negotiations, students will face contradictions. Hence, they will need to justify their opinions, and reflect on their thinking when they are asked to support their perspectives (Kwan & Wong, 2015). Additionally, Schunk (2012) considered constructivist learners to actively construct knowledge such as through the process of making sense when encountering new information because this process demands learners to adapt and modify their present cognitive strategies and knowledge, so that the newly acquired knowledge is stored in their knowledge bank, thus completing the constructivist phase.

THEORIES IN SECOND LANGUAGE ACQUISITION (SLA)

Theories in language learning should be reviewed to understand how adults learn language. Undeniably, first language acquisition is different in many aspects from learning a second language. One of the pioneers in the field of Second Language Acquisition (SLA), Krashen has been investigating and developing theories in SLA (Krashen, 2009). The researcher believed that these theories are crucial and relevant to this study.

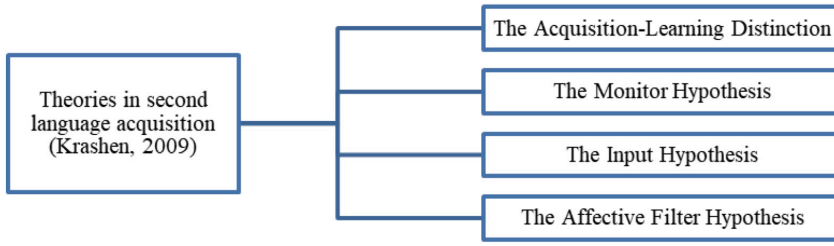

Fig. 1. Krashen's theories in second language acquisition

Krashen (2009) discussed several important theories in the field of SLA. The first theory is the Acquisition-Learning Distinction which dictates that adults learning a second language have two separate, independent ways of acquiring communicative competence. The first one is through language acquisition which is imitative to how children acquire their mother tongue. The language acquisition is a subconscious, implicit process where the learners are not aware of the acquisition process, but they became aware of the language acquisition when they used the language to interact. Grammar rules that they violated and any errors that occur, may not be within their consciousness. Other terms that refer to this method of language acquisition are 'implicit learning, informal learning, and natural learning' (Krashen, 2009, p. 10). The next method of SLA according to the Acquisition-Learning Distinction, is through language learning. In contrast to language acquisition, the language learning process dictates that learners are consciously aware of their effort to learn a language such as 'knowing the rules, being aware of them, and being able to talk about them' (Krashen, 2009, p. 11). This method of learning is also referred to as explicit learning.

Comparatively, the Monitor Hypothesis opposes the Acquisition-Learning Distinction. It disagrees that learning, and acquisition are two independent processes, rather, these processes are interdependent. Acquisition determines the acquirer's fluency. Meanwhile, learning functions as a monitor, or editor that adapts, adopts, edit, or repair the language during or after the language is produced. Specifically, acquiring the language is important. However, learning takes place when the acquirer develops their language through practice, and self-correction before or after writing or speaking. According to the monitor hypothesis, the formal rules that learners learn have a limited role and they are only applicable within three conditions: time, focus on

form, and knowing the rule (Krashen, 2009). If they have ample time to think, learners can apply the formal rules. Although, natural interactions seldom allow for speakers to take too long, lest learners risk appearing hesitant in their speech or accused of inattention for taking focus off the conversation to think about what to say, instead. Next, while interacting with one another, learners can be consciously learning if they focus on form or thinking about correctness (Dulay & Burt, 1978 in Krashen, 2009, p. 16). However, again, they may not be able to recall and may lose focus on the conversation. Finally, conscious learning can occur when learners know all of the language rules, which is not possible as language learners are most often exposed to fragments of the rules. As Krashen (2009, p. 16) reiterated: 'We can be sure that our students are exposed only to a small part of the total grammar of the language, and we know that even the best students do not learn every rule they are exposed to'.

Next, another theory that Krashen proposed on SLA is the Input Hypothesis. The impetus for this theory is questions such as how do people acquire language? How do they advance from one stage to another? Acquisition is developed when learners' understanding of the language structure is understood beyond their present understanding. Hence, how do learners develop understanding of language structures they have not acquired? This is achievable when learners use their knowledge of the world, context, and extra-linguistic information, on top of their linguistic competence (Krashen, 2009, p. 21). Therefore, the Input Hypothesis opposes the assumptions that language learning is administered by learning the structures, which are then used in practice, and then only fluency develops. Fluency and accuracy cannot be taught explicitly, and it takes time to develop independently by listening and understanding more input.

Finally, another theory in SLA is the Affective Filter Hypothesis. This theory relates to how the affective factors relate to the second language acquisition process (Krashen, 2009). Dulay and Burt (1977) introduced the concept of the affective filter and in 1981, Krashen established a set of variables that can affect successful language learning.

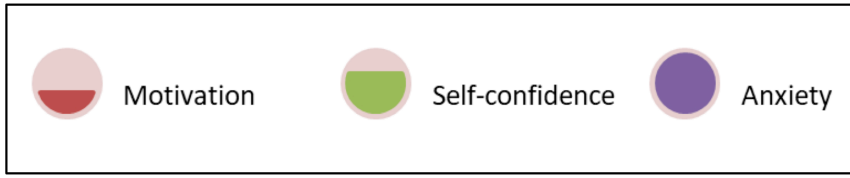

Fig. SEQ Figure * ARABIC 2. Variables in the Affective Filter

Non-optimal learners who possess a high or strong Affective Filter, would display, or possess low motivation, low self-confidence, and high anxiety. Meanwhile, optimal learners would possess higher motivation, higher self-confidence, and lower anxiety. When an input is given, the learners' affective variables can either 'impede or facilitate the delivery of input to the language acquisition device' which can influence whether the input was comprehensible to the learners or otherwise (Krashen, 2009, p. 32).

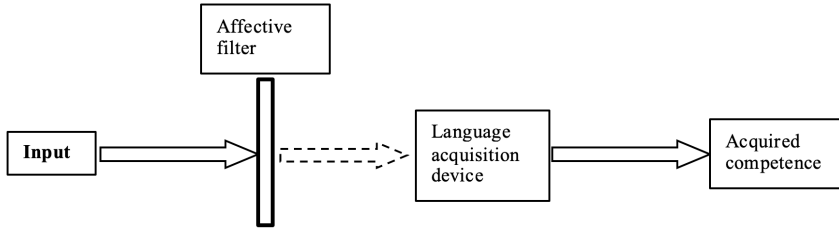

Fig. SEQ Figure * ARABIC 3. An illustration of the Affective Filter Hypothesis

In conclusion, the researcher believes that these SLA theories are fundamental in understanding how language learners acquire and develop their language. In relation to this study, theories such as the Input Hypothesis and the Affective Filter Hypothesis are significant in helping researchers, educators, and learners understand the process of learning and acquiring a second language because not only are there many different theories and school of thought, but there are also many different internal and external factors influence learners' proficiency.

MULTIMODAL LITERACY

Multimodality refers to the different modes of communication that existed in a single message (Gregori-Signes, 2014). Walsh (2009, p. 1) indicated that multimodal literacy was also referred to as multiliteracies (Cope & Kalantzis, 2000; Unsworth, 2001), new literacies (Lankshear & Knobel, 2003), multimodal texts, multimodal discourse, and multimodality. In this study, multimodality is in the use of Digital Storytelling, digital tools, computer skills, social media, and integration of 21st century learning skills in the ESL classroom.

Multimodality is evident in today's digital age where there is 'textual shift' in the sharing and dispersal of information and communication, which has led to a shift in the 'literacy and learning' paradigm (Walsh, 2009, p. 1). In other words, technological advancement in digital media and mobile technology empowered students' multitasking aptitude such as in activities like 'surfing the internet, texting and chatting on social media, and playing a game while listening to music' (Walsh, 2009, p. 1). Youth growing up in this day and age were capable of producing their own unique multimedia texts through hybrid texts such as weblogs, instastory, podcasts, snapchat, tiktok, or YouTube videos. The advancement of the web 2.0 allowed for greater interactive use of the world wide web via collaboration, connectivity, and enhanced communication. In addition, web 2.0 technology also led to another source of information sharing, such as blogs, wikis, podcasting as well as social media, which further contributed to new cultures such as the paroxysm of memes, and gifs. The use of abbreviations in spelling, numbers, graphics, and images, emoji, acronyms, and such have influenced the communication of today.

Via exposure to synchronized texts, images, sound, and movement, youths of today have developed multitasking, specifically on the digital platform (Walsh, 2009). Thus, how has this shift changed the way students learn inside and outside the classroom? How have these processes of 'texting, blogging, or communicating online' affected the 'cognitive abilities' of students? (Walsh, 2009, p. 2). Comparatively, how do their different cognitive abilities process information when dealing with classroom tasks such as writing, reading, and interacting with printed texts?

The emergence and advancement in digital communication would inevitably lead to innovation of theories and pedagogy. Similarly, in order to prevent redundancy in the classrooms, curriculum and assessment practices must also be transformed (Walsh, 2009). Educators were tasked with identifying 'what type of pedagogical shift' their students needed to accommodate the textual shift, and the integral role that the 'new modes of communication' played in the communication in the classroom (Walsh, 2009, p. 2). In understanding and reflecting in the emergence of multimodality in the learning environment, researchers and educators should ponder on aspects of digital texts that students interact with:

1. Whether the visual, aural, spatial, and textual processes occurred separately or simultaneously?
2. Do students read digital texts for meaning in the same way as they read print-based texts?
3. What are the strategies needed for digital reading to enhance 'inferential, analytical, critical and evaluative understanding'?
4. What are the differences between the process of sending a text message and a handwritten message on paper?

Advancement in communication devices such as smartphones and tablets led to the success of social media, which are available within reach, any time of the day. Social media popularized hybrid texts, which involved 'an interchange of modalities and processes' (Walsh, 2009, p. 2). A post on social media has specific designs, where it may incorporate images, graphics, video, and sound. Through social media as well, consumers were given a platform to participate, create, produce, design and author their own texts for communication, publicly, discreetly, or anonymously (Walsh, 2009). Hence, reading does not only include looking at the text, but also listening to the audio, viewing the visual and responding to the text. Conversely, writing in hybrid text may involve speech, and listening as well. The preconceived notion of what texts are, and the overall process of literacy has blurred, and most texts are transformed into hybrid texts (Walsh, 2009). The multimodal environment in the classroom today incorporates both print-based and digital texts in the teaching and learning process. Table 1 outlines the difference between these two materials.

When multimodal literacy is incorporated in the classroom, students are

engaged in other processes that are not limited to the 'traditional aspects of literacy' only. For instance, they would also come across semiotic systems (Walsh, 2009, p. 6). In other words, they do not only have to understand the context, but also the 'interconnection...between the modalities of written text, image, and sound' (Walsh, 2009, p. 6). More holistic learning takes place when multimodal literacy is included in the curriculum as students become more responsible and active in their learning. To illustrate, Walsh (2009, p. 6) observed that whilst recording their narration, students became aware and careful of their 'tone, intonation, pauses, pitch, modulation and stress' in their dialogue and how it would affect their audience. The present study aims for this kind of awareness among its participants too.

Besides that, the researcher also aims for students to possess high levels of engagement in their task. Male students who were often disinterested in classroom learning displayed higher learner engagement when conventional tasks were integrated with multimodal texts (Walsh, 2009). While students interact with the written text, they must also plan the audio production, and which visual (images and graphics) to incorporate. 'This whole process demonstrates a different literacy where modes converge' (Walsh, 2009, p. 7). There is a structure in gaining literacy and the learning experiences when there is collaboration, not only in the task but also between students when they discuss, listen, plan, review, research, design, write and publish their digital content together.

Literacy process of print-based materials	**Literacy process with digital technology**
▪ The reading process involves knowledge on coding, semantic and pragmatic. ▪ Use of latent and background knowledge to understand different types of texts and audience. ▪ When necessary, the instructor models and scaffolds the overall genre with different text types. ▪ Students plan and draft print-based texts. ▪ Throughout modelling and scaffolding by the instructor, peer collaboration and discussion can take place.	▪ Exploration of web 2.0 technology by both instructor and students. ▪ The process of planning, drafting, designing content, and exploring the combination of audio and video files. ▪ Produce storyboards as a record and narrative for the images and graphics. ▪ Proceed with combining visual, written and audio materials such as narrating the text, and recording the audio within a time limit with sound and music. ▪ Contribute to a sense of an audience.

Table 1. Literacy processes of print-based materials vs. digital technology

Similarly, when multimodal pedagogy was implemented on a group with higher proficiency, it was observed that students revealed an inclination for creative thinking, teamwork in problem-solving and divergent thinking (Walsh, 2009). During the completion of their digital content, they displayed higher order thinking skills in both individual and group tasks, in addition to learner autonomy, they required little teacher talk. The higher proficiency students were able to develop learner autonomy and their intrinsic motivation during the completion of the digital content, as evident in Walsh's commentary:

> *A rather quiet student became the class expert...with camerawork and editing. The teacher had to open the classroom at lunchtimes to have the movies completed and most students attended these extra sessions. Before the teacher could call in an expert to demonstrate the iMovie application, the students had taught themselves and were teaching other class members. Students taught themselves how to use GarageBand to add music and sound effects to the movies (Walsh, 2009, p. 41).*

Finally, multimodal pedagogy helped in addressing all types of students, from the extroverted ones to the introverted ones. As an approach in enhancing learning experiences, multimodal literacy's potential proved beneficial due to its holistic versatility that can fit any mode of learning.

MULTIMODAL LITERACY VIA DIGITAL STORYTELLING

The impact of technology, in addition to the ease and assistance afforded by technology over the recent years, have been tremendous. Technological innovations, especially recording tools such as digital cameras, video cameras and smartphones, software for editing, narrating, and authoring which are readily available, have provided more opportunities for technology to be used in the classroom. The opportunities also extended to helping students learn and making the experience fun and more relevant to the real world. These innovations created more meaningful learning experiences while simultaneously facilitating the process of knowledge construction, presentation of ideas and information sharing.

Storytelling has always been a tool for conveying knowledge and values throughout the history of human development especially during the time of

the Prophet Muhammad, Plato, and Aristotle. In fact, storytelling was at its height during the Shakespearean age. Although informal and unguided by any curriculum, storytelling is a powerful teaching tool due to its natural yet powerful technique of engaging and exchanging knowledge, experiences, moral values and even humor (Smeda, Dakich & Sharda, 2013). In the classroom, storytelling can be used as a tool to personalize students' learning experiences, by providing opportunities for students to 'construct their own meaning and knowledge from the stories that they hear and tell' (Behmer, 2005 in Smeda et al., 2013, p. 3).

To make the curriculum relevant to the students in the present classroom, technology should be integrated with the syllabus. However, this does not merely refer to the technology manipulated and controlled by instructors in the classroom. In fact, with the popularity and widespread use of social media today, the culture of storytelling lives on through these new digital tools. Hence, 'a digital story can be viewed as a merger between traditional storytelling and the use of multimedia technology' (Normann, 2011 in Smeda et al., 2013, p. 1).

Students should be given authority over their learning as well, thus promoting learner autonomy. The implementation of Digital Storytelling increases student engagement, and promotes autonomy, innovation, problem-solving, creativity, collaboration, and teamwork (Robin, 2016). In the context of English classrooms nowadays, most students have ready access to the hardware, such as computers and mobile phones, and software in the computers or online, to ensure a possible execution of Digital Storytelling. Learning can become more meaningful for students because via Digital Storytelling, they are responsible for the production of their stories. Digital Storytelling also appeals to the digital natives today due to their familiarity with digital and technological influences such as social media. In the West, the use of Digital Storytelling as a pedagogical tool is extensive, where studies include primary (Behmer, 2005; Bjorgen, 2010), secondary (Lowenthal, 2009), tertiary (Barrett, 2006; Zaragoza-Ninet & Brigido-Corachan, 2009 in Gregori-Signes, 2014) and preparatory educators (Blocher, 2008; Dogan & Robin, 2008). In fact, there are currently 123 institutes that manage courses on Digital Storytelling (McWilliam, 2009). Digital Storytelling has existed since the 1990s and there is even a Centre for Digital Storytelling in the United States (Lambert, 2010). Digital Storytelling

is reportedly beneficial to students' learning due to its flexibility and it can be used in many fields such as health and services, community development, social services, human rights, environmental justice and most importantly, in education (Gregori-Signes, 2014). In the present age of technological advancement, Digital Storytelling continues to evolve over time, and it is present in many digital forms, in media and entertainment today such as in blogs, podcasts, social media and websites especially those like YouTube (Couldry, 2008).

Digital Storytelling is narrated in students' own voice via multimedia tools such as soundtracks, music, animations, graphics, images, and such (Barrett, 2006; Lambert, 2010; Robin, 2016). There are seven key features of Digital Storytelling (Lambert, 2013). Essentially, a digital story must contain a point of view, complication, drama or conflict, narration, soundtrack or music, details and lastly, pacing. However, Wikan, Mølster, Faugli and Hope (2010) and, Gregori-Signes (2014) elaborated that Digital Storytelling in the educational setting is more complicated. Firstly, once it is incorporated into the curriculum, it should be assessed and evaluated. Secondly, since Digital Storytelling in this setting is produced by students, they might not only need instructions, but also a higher level of guidance and facilitation throughout the process of completing the Digital Storytelling.

In the Malaysian context, literature on keywords such as accuracy and Digital Storytelling revealed minimal results. However, other related keywords revealed studied in related areas such as cybernated storytelling (Rosli & Idrus, 2017), 21st century learning skills (Ming, Sim, Mahmud, Kee, Zabidi & Ismail, 2014), technology integration via Digital Storytelling (Thang, Lin, Mahmud, Ismail & Zabidi, 2014), computer-mediated communication (Lingam & Aripin, 2019). The researcher believed that this research is among the few studies that investigated at length, and in-depth the phenomenon of spoken and written accuracy in the ESL classroom with the application of Digital Storytelling. Additionally, the researcher sought to answer how and why Digital Storytelling affects language learning through a rigorous process of data collection and analysis. It is hoped that this research helped shed light on key areas in the Malaysian context.

AN INTRODUCTION TO DIGITAL STORYTELLING

Storytelling is an ancient art (Salpeter, 2005), and people are naturally attracted to stories (Dujmović, 2006). Digital Storytelling is a short story delivered through narrations and dialogues, and the uniqueness is in the incorporation of multimedia tools such as music and images. The use of Digital Storytelling provides opportunities for students to let their voice be heard in terms of sharing ideas and experiences, developing storyline, creating scripts and other situational opportunities.

According to Saponaro (2005 in Abu, 2014), the use of Digital Storytelling has increased students' confidence in communicating in English and in using media as a learning tool. The combination of spoken narrative and the visuals such as animations, music and images were believed to not only benefit learners of diverse learning preferences, but also help inculcate values such as teamwork.

This study is significant to students in preparing and developing their 21st century learning skills. This is because values and key elements such as collaborative decision-making, sharing of information, teamwork, innovation, and efficiency are essential today. Students who want to compete and succeed must be able to 'communicate, share, and use information to solve complex problems, adapt and innovate in response to new demands and changing circumstances, and command and expand the power of technology to create new knowledge' (Arch, 2010, p. 1). The 21st century learning skills consisted of four categories: digital age literacies, inventive thinking, effective communication, and high productivity (NCREL, & Group, 2003). The definition of the 21st century learning skills referred to the ability:

> *...to a) collect and/or retrieve information, b) organize and manage information, c) evaluate the quality, relevance, and usefulness of information, and d) generate accurate information through the use of existing resources knowledge (Arch, 2010, p. 2).*

One literacy facet listed in the 21st century learning skills was visual literacy. In relevance to this study, visual literacy is one facet of the 21st century learning skills that students developed. Most students have access to smart phones equipped with digital cameras, video streaming, and common

imagery standards allow for users to communicate through visual imageries. Communication in the age of technology and the internet mostly consisted of 'the convergence of voice, video, and data into a common digital format' (Arch, 2010, p. 6). Visual literacy offers an image-rich curriculum especially since Internet sites can enable access to more students. Visual literacy also helped in teaching them quicker and more meaningfully, as compared 'to traditional written student reports and text-based, verbal instruction' (Burmark, 2002 as cited in Arch, 2010, p. 6). Besides the enhancement in student learning, visual literacy also improved their options in the workplace (Burmark, 2004).

Digital Storytelling encourages students to embrace digital literacy, which is important in order to understand, relate and motivate students (Bumgarner, 2012). In the current scenario around the world, technology is prevalent and media-saturated, and it is not only limited to the youth, but adults too. Hence, educators must learn to integrate technology into the classroom (Bumgarner, 2012). If the students find the classrooms boring, then it is safe to assume that the environment is not appealing to their curiosity and interests. Although many educators worry that technology is making students conform to the software updates, smartphones, or web browsers. However, if it is used effectively, technology can be a beneficial tool to sustain students' interests. Frost and Postman (2006) claimed that many students are losing themselves in technology, but Bumgarner (2012) contested that while we worry about losing ourselves in technology, we are not given a choice because the younger generation is already there.

Students today are part of the textual landscape (Carrington, 2005). They are able to multitask via a multitude of technology available to them digitally or at hand. For example, they play online games while sending texts, share and edit images while listening to music, or construct their own hybrid texts such as through social media (Walsh, 2009). In such instances of information sharing, students use abbreviated spellings, numbers indicating words, graphically manipulated images, emojis and icons to contribute, retell and enhance their stories (Walsh, 2009). Most educators are concerned by how this multi-tasking and adaptation of language such as using images, emoji, or other graphics to spread or share information, affected students' language skills. There were also concerns on whether this new form of literacy will enhance or impair proficiency.

On the other hand, some educators also fear that if technology and technologically based pedagogy are not inculcated into the classroom, lessons will face the danger of becoming repetitive and monotonous (Walsh, 2009). Thus, educators faced a conundrum. Those who fear the disruption or damage that technology caused to students' learning experience, cannot limit students' use of technology outside of the classroom. Furthermore, as Bumgarner (2012) mentioned earlier, the younger generation are already immersed in technology. Hence, the next best step that educators could do is to mold the existing technology to be something that could benefit the students academically as well as developing lifelong learning skills.

In conclusion, the significance of the research to policy makers, other researchers and practitioners in the field are as elaborated. The researcher believed that this can be further studied especially in building students' intrinsic motivation in learning English. Whether at school or in the tertiary level, educators have first-hand experience in dealing with students. In response to the demands of the 21st century, the researcher also believed that students must be adequately prepared in terms of their 21st century learning skills. No man is an island. Therefore, students must be able to communicate clearly, and collaborate with others. Undeniably, students needed a substantial amount of exposure and practice to develop and strengthen their 21st century learning skills to someday become more critical and inventive thinkers, problem solvers and innovators. It is hoped that research contributed to the body of knowledge as preliminary research on 21st century learning skills and language learning achievement.

DEVELOPING DIGITAL STORIES

The process of developing digital stories includes the stage of brainstorming, storyboarding, scriptwriting, rehearsing and presenting. Nevertheless, these processes were somewhat iterative, depending on many factors such as the learners' proficiency and teamwork or the complexity of their presentations, which required more attention and detail.

i. Grouping Students

Students were placed into groups of three to four students per group. It is better to form groups because the students can be more engaged

by participating in group discussions, group-appointed roles and meeting others' expectations which contributes to the successful implementation of Digital Storytelling.

ii. Brainstorming

The first step of Digital Storytelling begins with the brainstorming process. About one to two lessons were allocated for the process of dividing students into groups of three to four persons, and to allow for group discussions. The discussion sessions should include the processes of identifying a story, sharing of ideas and opinions with each other and roughly, developing the storyline.

One of the challenges of Digital Storytelling was finding a story/genre/theme. Lambert (2010) said that most of the time, people would comment that they have no stories to share because they may have the impression that their stories were not substantial or entertaining enough. This kind of outlook destroys one's creative abilities (Lambert, 2010). As people grow into adulthood, the art of storytelling was often perceived as frivolous, time wasting and irrelevant. Contrary to these beliefs, storytelling is important, emotionally impactful, and more memorable because every person possesses the innate sense of storytelling (Lambert, 2010). Similar to the traditional form of storytelling, Digital Storytelling consists of specific themes, topics, and point of view such as first-, second- or third-person point of view. Students were given options to share and create personal stories, a reiteration of historical events, autobiographies, and many more. To provide choices, flexibility and an opportunity for sharing and expanding their creativity, students could choose a storybook and adapt their Digital Storytelling from the perspective of a character in the book (Normann, 2011), or develop their own personal story based on the guideline provided in Table 2 by Lambert (2010).

Theme	Descriptions
A story about an important person or a public figure	▪ Character stories: Students can talk about how they love, how they are inspired, how they find meaning in relationships that are important to them. ▪ Memorial stories: Students can talk about people who have passed in order to remember and honour them, as part of the grieving process.
A story about an event	▪ Adventure stories: Students can talk about places they have been to on their travels, to reminisce and share their experience. Similarly, they may also talk about places they would like to visit in the future. ▪ Accomplishment stories: Students can talk about accomplishing a goal, such as graduating, learning or winning something prominent to them.
A story about a place in their life	▪ Nostalgic stories: Students can talk about a nostalgic place such as their hometown, an ancestral home; a park, town, forest, mountain, river, restaurant, by providing their insights.
Other personal stories	▪ Recovery stories: Students can talk about overcoming a challenge, crisis, disease, and others. ▪ Love stories: Students can talk about family, siblings or friendship. ▪ Discovery stories: Students can talk about learning new skills or creating something new.

Table 2. Suggested themes for developing personal stories in Digital Storytelling

Lambert (2010) suggested some topics/themes/genres as suggestions for students to produce their Digital Storytelling. A story about an important person or a public figure could relate to stories about inspiring characters or to honor public figures who had passed. In both pilot study and data collection, students had selected such themes for their Digital Storytelling. Students could also produce stories about important, outstanding events that had happened, and these events can be personal experiences such as experiences that they valued, or personal accomplishments. Next, students could present their stories in an important place/setting holding memorable nostalgia to them. Lastly, other recommendations also included stories on recovery from personal obstacles, love stories and stories on discovery of something new. Based on the pilot study and data collection, students preferred to produce stories on important public figures, love stories, and stories with familial values. This was perhaps because this task was done in a group setting, therefore, it could be challenging and uncomfortable to adopt a personal perspective in a group presentation.

However, there were no restrictions to selecting stories for Digital Storytelling, only guidelines so that students would have a purpose of the activity and objectives for the lesson in mind while creating the stories. The length of a Digital Storytelling session in an educational setting might vary. For instance, Smeda, et al. (2013) suggested that the length of a Digital Storytelling session could be between one to three minutes, while Robin (2016) recommended that the length of a Digital Storytelling session ranged between two and ten minutes.

In consideration of the objective of the study, which was to explore learners' accuracy, and enhance their linguistic aspects, the researcher perceived that the suitable duration of participants' Digital Storytelling should be between 15 to 20 minutes. This duration included the music, sound effect and any other visual and auditory content. Additionally, a suitable duration that was not too short or too lengthy would allow for proper elaboration and development of the plot and storyline.

iii. Creating The Storyboard

The subsequent lessons included creating a storyboard. Once the students have the general idea of their topic/theme and storyline, they start developing their storyboard. A storyboard is a combination of written or imagery depiction of the core elements that exist in a digital story (Robin, 2016). Therefore, each group's storyboard would be different from the rest, depending on their plot. However, instructors should bear in mind that every plot should contain characters, setting, exposition, conflict, and resolution (Robin, 2016).

It is the norm that the storyboard should be completed before the compilation of all the multimedia and the writing of the scripts. In order to make sense and maintain the audience's attention, the storyline needed to be chronological, relevant, and understandable to the audience. Additionally, the order in which the plot developed might also be organized during this initial stage to ensure maximum effect. While creating a storyboard might seem tedious, it is a fundamental part of the creative process, as it allowed students to project the finished product through the images and texts before the rest of the stage began. Storyboarding helped students to visualize the process of

putting the digital story together. Consequently, this helped identify any plot holes or missing elements in their stories that they may have overlooked.

Essentially, the process of creating the storyboard could take up to a time frame of four days to a week (Robin, 2016). For participants who were experiencing Digital Storytelling for the first time, more time was allocated for this process. Instructors play an important role in helping to develop the storyboard, such as acting as a sounding board, particularly in asking students to justify and to clarify the main ideas of the story. Instructors also acted as a facilitator in organizing the story chronologically and logically as students might miss certain aspects. Once the storyboard is finalized and completed, students will start to plan the visual elements in their story, namely the transition between scenes, animations, images, music, and soundtrack.

In this study, the researcher proposes the use of the free online software such as Photo Story or Storyboardthat, since storyboards could be produced either digitally by using software or manually such as on paper or drawing board. It was more cost-effective and timesaving to use any free, online software. Students, however, had the choice of using other computer programs, for example, Microsoft Word, or Microsoft PowerPoint, which were equally cost-effective and practical.

iv. Writing The Scripts

A script refers to the predictable oral exchanges for social situations such as greeting, apologizing, complementing, or inviting. Scripts are culturally and socially embedded, and they have a structure, pattern, and script even when uttered (Bashir, Azeem & Dogar, 2011).

Quite commonly, language learners experienced inhibitions where they were uncomfortable, not confident, or simply did not understand the language. Thus, this would place them in situations where they could not effectively participate in the discourse at hand. When learners occasionally attempt to use the language, they might be misunderstood due to pronunciation error or incorrect vocabulary, which will further rescind their confidence and motivation to learn the language.

Bashir et al. (2011) suggested for educators to create the knowledge and awareness among students that it is common for speakers to be misunderstood sometimes. Speakers also sometimes needed to clarify their discourse, regardless of their level of proficiency. This limitation could be overcome by learning and familiarizing oneself with the anticipated forms of linguistic exchanges such as language for clarifying and expressing misunderstanding. Additionally, students should also learn how to respond positively when they experience communication breakdowns. Educators can create an 'authentic practice environment' that imitates the real world to familiarize students, as well as develop their language skills, their resilience and confidence as language learners inside and outside the classroom (Bashir et al., 2011).

v. Rehearsing

The next step before presenting their digital story was rehearsing. Normally, rehearsing was done during students' personal time to inculcate the element of surprise, as well as to eliminate interference from the teacher or other classmates. Students also tended to be nervous since Digital Storytelling is a form of public speaking. Thus, rehearsing should be done privately in seclusion to better prepare them. Students were given approximately a week to rehearse their presentation. At this stage, students should plan for contingencies such as an absent group member or technical difficulties.

Nevertheless, during both the pilot study and data collection stage, there were incidents where presentations were not able to proceed due to a sick member and technical difficulties. The instructor has anticipated a few such technical difficulties such as broken speakers and PCs, or incompatible software. In cases where a member of the group fell sick, the presentation had to be postponed to a later date which usually caused problems on everyone's schedules since presenting Digital Storytelling requires specific technological and physical (large, well-equipped classrooms) setups. Nonetheless, planning for such scenarios proved advantageous as it limited the chances of encountering unwanted and unexpected surprises.

In brief, rehearsing was an important part of preparation that most students tend to overlook. The phrase, practice makes perfect, is very important because it was observed that students often do not expect problems. Thus, they were not prepared for glitches or other unexpected surprises. Rehearsing is also crucial to estimate important details such as the duration and the necessary equipment or prop that were needed.

vi. Presenting Digital Stories

The presentation of digital stories was done during the eighth week of the semester. The turns to present were chosen randomly, via ballots. In preparation for the presentations, some groups who put the extra effort in their presentations brought props, while some did not.

One setback that occurred in both pilot study and data collection was the technical difficulties. This was expected as one of the possible setbacks of using technology. One or two groups are very ambitious in their choice of software and these groups would usually experience these glitches. During the initial stages of brainstorming and storyboarding, students were constantly reminded to use common and compatible software such as the Microsoft PowerPoint because it is compatible with nearly every PC there is. If students chose another software or application, they should make sure the PC that was used on presentation day was compatible. Nonetheless, in cases where there were such technical difficulties, one or two groups had to modify and transfer their multimedia materials into much compatible software. The worst-case scenario was that students had to postpone their presentations to a later date to solve their technical issues.

Next, the presentation stage generally took about two class sessions. Some time was also allocated to set up the classroom, as well as the equipment. In addition to that, time was also allocated to set aside between groups for them so that they can set up their setting, slides, and presentations and test their audio and music.

Based on the researcher's observation, students' morale was at the highest during this event. Each member of the class, even the

most reluctant participant, would be supportive of everyone else's presentation. Undeniably, this group dynamic was what the researcher valued the most, as it was a morale boost in so many aspects such as public speaking and teamwork. Smeda et al. (2013, p. 16) posited that in past research, 'teachers observed that students were learning without realizing'. The researcher believed that Digital Storytelling was the ideal choice of pedagogical tool that reinforced the various complementary skills. It provides the learners the opportunities to develop an all-around skillset in an environment of meaningful learning (Smeda et al., 2013).

As a conclusion, the present research tapped into the use of Digital Storytelling as a pedagogical tool within the task-based approach. As Smeda et al. (2013) reported, the use of technology in education contributed to the growth in the various skills that learners possess. Most importantly, Digital Storytelling assisted students in mastering tasks such as spelling, sentence formation, and building, and forming a whole body of texts that they previously perceived as impossible (Smeda et al., 2013, p. 16). This finding and development in the body of knowledge could help shed light on helping learners overcome their reluctance in English. Table 3 provides an outline of the processes involved in developing a digital story.

Process	Instruction
Providing instructions and guidelines	▪ Students will form groups of four or five per group. ▪ The instructor demonstrates and shows samples of Digital Storytelling. ▪ The instructor provides guidelines and instructions to the students including a suitable duration, plot development, copyright issues and citing sources, and assigning roles to group members. ▪ Besides their fictional characters, students are also assigned roles in completing the task.
Establishing a plot	▪ Students will develop a story for their Digital Storytelling. ▪ Students will identify the protagonist, antagonist and other characters and assign roles to each member. ▪ Students will produce their storyboard using applications such as *Storyboardthat* or *Photo Story.* ▪ The purpose of the storyboard is to give the students and instructor a general idea of the plot and characters in the story.
Collecting multimedia resources	▪ Students will gather materials they will need for their story (images, sound effects, animations).
Scriptwriting	▪ Students will write a script and submit the first draft to the instructor for review. ▪ Then the necessary corrections, editing or additions are made. ▪ Second (or more) drafts of the scripts are produced, if necessary.
Arranging resources	▪ Once the scripts are approved, students begin arranging the scenes in the story, along with other multimedia materials. Microsoft PowerPoint is recommended although students can explore other tools. ▪ If necessary, students may modify their images, audio, content, and text.
Rehearsing	▪ Students will rehearse their scripts and narrations, together with their multimedia presentation (background, sound effects) ▪ Students should memorize their scripts. In instances where the students forget their lines, they may improvise on the spot.
Presenting	▪ Students will present their digital stories in front of an audience.

Table 3. Outline of processes in developing digital stories

CHALLENGES IN CREATING DIGITAL STORIES FOR STUDENTS

To create their own digital stories, students must be well-versed with the knowledge on how to use digital media and computer tools. To prevent incidents of students summing up with bad storytelling, teachers must provide students with sources of digital images and computer-based authoring software (Robin, 2006). Teachers are advised to provide resources such as 'A Questioning Toolkit' (http://www.fno.org/nov97/toolkit.html). 'A Questioning Toolkit' is one of the resources that provide exposure to

students to help them build more effective questioning methods in creating good scripts for their own digital stories.

The creation of digital stories can also cause issues of intellectual properties rights and copyrights. Without proper guidance, students may be tempted to simply use resources available on the internet such as images, music and other material for supplementary content in their digital stories. If teachers wish to educate and guide their students about copyright issues, they can do so by letting students create their own materials instead. With the present state of advanced technology, students can snap and use their own photos, record their own narration, and produce their own sound effects.

Alternatively, for those students who wish to use readily available materials and focus more on other aspects of digital storytelling, they may access resources available in the public domain. Some of the recommendations from Robin (2006) include websites such as the American Memory Collection from the United States Library of Congress (http://memory.loc.gov/ammem/), the New York Public Library Picture Collection Online (http://memory.loc.gov/ammem/), and the Free Kids Music website (http://freekidsmusic.com/music). These are some of the websites with royalty- free content specifically curated for educational purposes.

CONSIDERATIONS FOR TEACHERS USING DIGITAL STORYTELLING AS A PEDAGOGICAL TOOL

Teachers must first make sure that the students have the access to the tools and technology needed for them to participate in creating their digital stories. Fortunately, the technology required for Digital Storytelling are only simple technologies that students use daily in their lives. Applications such as Microsoft Word and Microsoft PowerPoint are helpful and user- friendly in producing scripts and storyboards, as well as a presentation tool for students' digital stories. For those who prefer to write, produce, or create their own materials, students can use their own smartphones or digital cameras. Most faculties and schools make gadgets like digital camera, video camcorder, or scanners readily available for students' use in their learning too. Other inexpensive tools like microphones and voice recorders for recording of audio narrations are also easy to be acquired for students' use in many of these institutions too.

Next, teachers must also consider students' use of the internet, or rather the necessity for access to the internet in creating their digital stories. Besides the concern that students should be able to have a good internet connection relevant to the stages of Digital Storytelling, they should also have access to the technological hardware and software that are needed for this task.

In terms of time management, teachers should be aware that good, comprehensive Digital Stories are time consuming. Since students have to go through the five main stages (brainstorming, scriptwriting, storyboarding, rehearsing, and presenting), it takes a significant amount of time for each phase to be approved by the teacher before students are able to move onto the next stage. For instance, students may take several stages (usually two to three) drafts of scriptwriting for the storytelling and narration to be logical to the plot, possible to remember, and free of language errors. On the other hand, some students may also struggle in familiarizing themselves with the hardware and software. Robin (2006) advised teachers to adopt the peer review, a reflection process that allows for both students and teachers the opportunity to discuss and review their progress.

LANGUAGE ENHANCEMENT THROUGH DIGITAL STORYTELLING

Digital Storytelling can strengthen students' proficiency, consequently promoting good grammar and language usage. The different stages in Digital Storytelling can help in targeting students' speaking skills, specifically negotiation and general discussion skills in the brainstorming phase. Undeniably, the storyboarding stage helps develop students' language and vocabulary where students read, look up and learn new words in the process of developing their storyboard. Next, students can strengthen their writing skills and sentence structure in the scriptwriting stage. As mentioned before, usually ESL learners will produce two to three drafts of scripts, so this will further improve their language proficiency. In both stages of rehearsing and presenting, students enhance their speaking skills, particularly in public speaking.

Conclusively, Digital Storytelling in the language classroom provides students with opportunities to improve their English through the variety of language-targeted activities. Both areas of written and spoken language

are enhanced through the many stages and repetitive processes of drafting and practices.

CONCLUSION

The purpose of this article is to discuss the theories underpinning multimodal literacy and consecutively, Digital Storytelling. The article also outlined and explained the stages included in the creation of digital stories which are brainstorming, storyboarding, scriptwriting, rehearsing and presenting. As an educational and instructional tool, Digital Storytelling can be an adaptable and entertaining approach that can help students to enjoy the language learning process.

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Transitioning From Physical To Virtual Classrooms During The Pandemic: Impact On Learning Motivation Of Postgraduate Students

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Abstract: Learning is a behavior influenced by many factors. Students' learning motivation is the core of making learning process efficient and learning results effective. However, learners' learning motivation is constantly changing and is influenced by various intrinsic and extrinsic factors, especially during the changing environments of learning during the Covid-19 pandemic. This research aims to study the postgraduate student's experience on their transition from physical to virtual classrooms from the aspect of learning motivation. This phenomenological research utilised a purposive sampling and involved five participants from People's Republic of China, who are studying in a Master coursework programme in a private university in Malaysia. Participants were interviewed and data collected were analysed for content. The findings indicated that the experience of learning has changed, but motivation remained high due to better intensity of content understanding. The feedback given by lecturers were timely and instantaneous, on par with their experience during physical classes, which was not a cause for concern. However, the two dimensions such as heightened distractions and lacked peer interaction were claimed to be the factors causing lower motivation.

Keywords: Motivation, virtual learning, pandemic

INTRODUCTION

Since the outbreak of the pandemic, the learning situation of most university students has changed completely. According to Chen Ying and Hu Yao (2020), there are three aspects which are mainly disrupted, namely the learning space (from physical classroom to virtual classroom), learning environment (from campus to home) and learning community (classmates and teachers to immediate families). According to previous studies, these changes can alter the students' learning performance in many areas. According to Mather and Sarkans (2018), the movement from physical to learning spaces had resulted in a difference in students' perceptions of achievement, challenges, satisfaction, and success.

Motivation to learn, a recurring theme in higher education, is a critical determinant in student's learning success. For example, a study by Wigfield and Wentzel (2007) found that two students with similar skills and knowledge had different academic performance due to different learning motivation. This infer to us that it is necessary to pay attention to students' learning motivation. Students' learning motivation is closely related to many factors. Based on the work by Woolfolk (2015), these factors include learning challenges, learning satisfaction, learning achievements, learning interests, goals and learning needs (Woolfolk, 2015). However, this study alongside the others which look at student's learning motivation were conducted in pre-pandemic era. This raises a question on whether it is the same case in the current practices, where the learning has shifted to the virtual realm during the CoVID-19 pandemic.

A few existing research relevant to the virtual classroom offered many valuable conclusions that support the assumption that there is a significant change in student's motivation to learn in a virtual environment. In the work by Jones and Blankenship (2017), it was found, for example, that student has less interest to learn as they feel that the virtual environment did not provide them with instantaneous interactions and feedback like what a physical presence of classmates and teachers could do. They felt short-changed due to the gaps they experienced from the instructions, delivery, and assessment. This was also supported by Barak et al. (2015) who ascertained those social interactions are important for students to achieve learning success.

As the situation caused by the pandemic may take longer than expected, learning online will continue to be the main agenda for most universities affected badly by the pandemic. It is hence worthwhile to probe further on this issue in order to understand the change of student's motivation in learning online and explore how student's motivation can be improved.

REVIEW OF LITERATURE

2.1 Learning motivation

Student's motivation to learn is one of the key factors that influence the student's achievements in study. There is a generally accepted version of the definition of learning motivation. According to Ames (1992), motivation is perceived as a reason or a goal a person has for behaving in a given manner in a given situation. It is part of a person's objectives and beliefs about what is important or not. Some previous studies have explained how learning motivation affects students' learning. According to Glynn et al. (2011), five major motivational components that affect student's learning: intrinsic and extrinsic motivation, personal relevance, self-efficacy, and self-determination.

2.2 Self-Determination Theory in learning

In the field of learning motivation, self-determination theory is of great significance. Self determination theory, originated from a research by Harter in 1978, which assert that human need to satisfy three of the following in order to achieve optimal function and growth. They are competence, relevance, and autonomy. A research by Richard M. Ryan and Edward L. Deci in 2000 further verified and improved the self-determination theory. It indicated that three basic psychological needs motivate the self to initiate behavior and specify essential nutrients for individual psychological health and well-being. These needs are said to be the universal and innate need for autonomy, competence, and relatedness. This study not only improved the details of self-determination theory, but also expanded and verified the application and role of self-determination theory in social activities, which lays an important foundation for the research of self-determination theory in the field of education.

In a critical study involving 136 university students found that students who accept theoretical basic learning show greater interest, professional ethics and determination compared to those who do not accept any theoretical basic learning. The researchers use three alternative explanatory models to analyze and found that self-determination theory plays an important role in helping students generate the learning motivation they need (Jang, 2008). This research makes a breakthrough to apply Self-determination theory in educational research to explain students' learning motivation in detail. It shows that meeting student's three factors (competence, autonomy, relatedness) can help student to have higher learning motivation and achieve better learning results.

2.3 Virtual Classroom

Virtual Classroom refers to the activities of teaching and learning mainly through the Internet. It makes full use of the new communication mechanism and rich resource learning environment provided by modern information technology. It makes teaching and learning no longer need to be face-to-face, and break the boundaries of space and time. A study by Hu Yong and Zhao Fengmei in 2015 confirmed this problem from the side: when students encounter problems in virtual classroom, timely feedback from teachers can help stimulate their motivation to continue learning. This is different from the situation in the physical classroom, because in the physical classroom, students are always under the gaze of the classroom, and close distance produces great pressure or motivation on students, which in turn urges teachers to pay more attention to students. Recently, some research proved this problem in other ways. A research by Youli et al (2020) indicated that 77.3% of the students show obvious learning burnout after a period of online learning. They showed different degrees of low sense of achievement, low mood and improper behavior, which point to low learning motivation. In 2020, Du Yuhua and Ding Jin's research studied the problem from a broader perspective. They found that due to the lack of relevant experience, appropriate teaching methods and effective management and control, the teaching effect of teachers in virtual classroom is much worse than that in physical classroom. Students' learning motivation is not high, and their learning performance is poor.

These reviews indicated that although it seemed natural for students to switch from physical to online classes, the is a need to study their experience from the aspect of learning motivation

RESEARCH QUESTIONS

The research is conducted to answer the following question.
Do the students experience a change in their motivation to learn with the change from a physical classroom to a virtual classroom?

RESEARCH DESIGN

This research intends to explore the essence of phenomena from the perspective of people who have experienced phenomena. In the context of this study, it is to probe the change of motivation in learning by students who had to shift from a face-to-face class to an online learning environment. Hence, this research adopts the phenomenology research design. The data for this study were collected using semi-structured interview to collect in-depth data.

3.1 Participants of this study

The selection of participants was done in a purposive manner. Due to the variation of how different countries were handling the pandemic and imposing restrictions to its citizens, this study only drew participants from the same country, which is from the People's Republic of China who made up majority of the class in the same module and from the same postgraduate programme in the university. The timeline for this study was important since it only intend to capture the duration of which the students transitioned from physical classroom to virtual learning. The data was collected in August 2020, during which the students had just finished the earlier semester in May 2020 entirely face-to-face and spent almost another semester entirely online.

From this criterion, five participants were selected and consented to be part of this research. The participants are international students

aged between 25 to 30 and are studying in the same programme in a private university in Selangor. The participants selected have at least spent a semester in this academic programme by attending physical classes on campus but were forced to studying virtually as they were not able to return to Malaysia due to the border restrictions and security measures. In their own country where they are residing, they were under nation-wide inter-province lockdown, and they were only able to leave their house to purchase essential items. All participants had similar learning experience and learning content, which learning mode has changed from face-to-face to fully online because of the world-wide pandemic.

3.2 Research Instruments

3.2.1 Interviews

A semi-structured interviews were used to probe more in-depth experiences regarding the phenomenon from the respondents. As every experience is unique, having a semi-structured interview allow the respondents more space to share his/her own unique experience. The interviews were guided by 8 questions adapted from Attitude/Motivation Test Battery (AMTB) (Gardner, 1985). The change of experience as their learning transitioned from physical to virtual classrooms were investigated.

The interviews were conducted individually online via a conferencing tool and were recorded with participants' consent. All the interviews lasted about 45-60 minutes. Participants were able to articulate their views well in English, but they occasionally code switched to Chinese. The interviewer or researcher was able to communicate and understand Chinese language hence it was not an issue to comprehend the overall meaning. These are captured and translated verbatim during the transcribing process and all participants were labelled as PA, PB, PC, PD and PE to protect their identity.

To improve the validity of the data collected, the transcripts from the interview were sent to the participants for their checking and

verification before analyses took place to increase validity of the data collected (O'Donoghue & Punch, 2003).

4.0 Results and Discussion

The findings revealed changes to students' motivation in learning based on the following four themes identified from the analysed data.

a) Intensity of learning
b) Focus during learning
c) Supporting peers
d) Interaction and feedback

4.1.1 Intensity of learning

All five respondents agreed that they can comprehend what were taught in virtual classroom better compared to being present in the physical classroom. This is because being international students, they find that the speed of the instruction in class get too fast sometimes and gave them problems in understanding the content. Adapting to their first semester learning in an English accent not familiar to them has also slowed their progress down. Shifting from physical to virtual classroom allowed them two options. Firstly, the virtual class has allowed them to enable the subtitles and translation subtitles during class so they were able to understand the instructor better. Two is that they were able to slow down the speed of any recorded sessions and that has helped them to understand the content better. This has led to more intense learning and their feeling of fulfilment and achievement increased their motivation to learn. The following are the excerpts from the interview transcripts which illustrated the above point.

"I made use of the advantages of online learning. For example, Google-Classroom has subtitle function, which can make up for some disadvantages in my language. With the help of the Internet in class, I can search on the Internet and check relevant materials at any time according to some terms said by my teacher, which is very convenient." (PA)

"I remembered that when I first came here, because I was not used to the teacher's accent, he was very fast in class, and then I couldn't understand it. During that time, I felt that my confidence in learning was really lower, and my motivation for learning also declined." (PC)

"There are some things in virtual classroom that have an advantage in solving this problem, such as the subtitle function. For some students, the subtitle function is great. When we can open the subtitles, it is relatively easy for us to learn, which can help us transition from beginner's understanding to advance, and able to respond to teacher accordingly" (PD)

From the aspect of intensity of learning, the respondents felt that the learning were more in-depth in a virtual environment, and hence increased their intrinsic motivation to learn. Participant E admitted that this has helped him to get better grade as she was able to understand and perform better academically.

"I didn't understand much at first when I attend classes on campus, but since I have spent two semesters online, my grades are better from semester to semester." (PE)

The affordances that technology has enabled them in virtual classes, in bridging the understanding of content taught for learners whose English is their foreign language has resulted in their higher motivation to learn.

4.1.2 Focus during learning

The responses gained on this aspect is again unanimous for all participants in this study. All of them expressed that they find it challenging to focus during class and while doing revision because of the distractions they face.

The distractions mentioned are both external factors. First is on the web-based applications used other than the conferencing tool platform for virtual class. For instance, due to the need

to stay connected, the participants normally will launch web-based instant messaging applications like WeChat during their virtual class. Hence, they tend to get a lot of notifications on non-academic related matters, and this has distracted them from paying full attention during class. This is demonstrated by the excepts below:

"Usually we also like to start the communication apps such as Wechat, QQ and Skype on the computer. If someone contacts us during the lecture, we will be easily distracted. In physical classroom, we will not do this, we will mute the phone according to the teacher's request. So we won't be disturbed by this kind of interference." (PA)

The physical presence of an instructor during class has also been identified as a factor that helps students pay more attention to learning. One participant has mentioned that because the teacher is not present physically, it allowed more opportunities for her to do something else. The following excepts delineates this point.

"During online learning, the teacher is not with the students, and there are no classmates to accompany the students. The students are very free, which means they can do whatever they want. The lack of a supervisor's role will give students more opportunities and possibilities to do something else, rather than focusing on their studies. Even if they didn't listen to the lecture, but just left the computer on and turned off the camera, no one knew if they were listening." (PD)

Another response blamed the environment of the house as a factor that prevented them from paying for the attention during class. The different caps that they would have to wear at home as a worker, a student and sometimes as children has increased the complexity for them to be able to focus on their learning.

"The home is different from the classroom in the school, it is a complex environment. The classroom has only one function, that is, learning, and all the facilities point to this function, but

home is different. Students can do many things at home, such as entertainment. As a result, students are increasing their study, but they are more easily distracted. It is obvious that all this will reduce the students' motivation to learn." (PE)

The findings that probe students learning motivation from this aspect of focus during learning has shed lights on external variables that keep their motivation in an intermittent state when it comes to learning. The three variables discussed and evident above are non-academic learning tool, presence of teacher's figure and the home environment.

4.1.3 Supporting peers

International students regarded the variable of supporting peers as an important dimension in their motivation to learn. However, there are 2 sub-themes identified based on this dimension. One is on "no changes to motivation" and another is on "peer encouragement".

An example for that not having the physical presence of their peers does not change their learning motivation is by Participant A who mentioned that the experience of learning has changed without the presence of physical friends.

"I have talked to many students about this problem, and everyone said that without the companionship of my classmates, the feeling of learning has changed, even though we know that this is an insurmountable problem under the epidemic. We feel that learning is very lonely, and learning has become a matter of self-control. It's a long way to go and it needs me to walk alone." (PA)

However, it is note-worthy that the absence of peers physically only changed the 'feel' of learning and not the motivation to learn. The environment obviously has changed which led to a different framework of learning. It is the same connotation made by Participant B, who mentioned the follow.

"I don't think this situation will affect my learning motivation. Because I don't think my learning motivation will be affected by these external factors. I am more influenced by my own internal factors. Neither virtual classroom nor physical classroom's lack of face-to-face communication will make me lose my motivation to learn. In other words, whether I can see a living person or not, I mean a classmate or a teacher. I will keep my learning state unchanged. I'm not sure what's going on with other people, but as far as my own experience is concerned, it makes no difference." (PB)

Participant B seemed to be sure that motivation is an internal drive and would not be affected by other external factors like peer's presence. This is, however, not the same case for Participant D who feel that students who refused to participate in classroom activities or group assessment impacted his own participation and contribution for an assignment. In in turn, demotivated him to learn better and achieve the outcomes intended by the assessment.

"In virtual classroom, some students may not be very good at English speaking or are introvert and choose not to turn on the microphone or talk very little. This makes it difficult for group work and face-to-face communication. After this happened, it made me feel very depressed and frustrated. Usually after I have said a lot, sometimes I seldom get a response from them, and I feel less willing to express my ideas next. This year I experienced about 8 group assignments, 4 of which were in this case." (PD)

In conclusion, the reactions and findings on this aspect are mixed and suggest that the peer support does change the learning motivation for certain students to some extent.

4.1.4 Lecturer's feedback

The participants noted that they were able to get timely feedback during their virtual sessions with their lecturer and this is equal

to their experience in the real physical classroom. For example, Participant C raised on the notion that she did not have issue with getting feedback in a virtual classroom as compared to physical classroom and hence it did not affect her motivation of learning.

"According to the specific situation of the classes we have taken so far, if I have any questions in virtual classroom, the feedback from the teacher is still very timely. There is not much difference between this and physical classroom, I feel that I will not reduce the motivation of learning because of this, because as I said earlier, I feel that the difference is not big. Many students also actively discuss problems with teachers in virtual classroom. When they have questions about what the teacher is saying, they will also interrupt the teacher to ask the teacher to explain to them, which is a very good phenomenon and is not significantly different from that in physical classroom." (PC)

The same notion was also mentioned by other participants, for example participant A mentioned that the function in Google Classroom and Zoom allowed them to raise their hands when they have questions. This has made it easier for them to clarify whatever they do not understand during class.

"Google classroom or Zoom has a button called "raise your hand". When prompted, and it can appears in the lower right corner of the screen to remind the teacher that a student wants to ask a question. In addition to this, we can also leave a message on comment area, tell the teacher our feedback or ask questions." (PA)

Participant C has also illustrated the same experience from her online class with a physical class where it has allowed her to ask questions whenever she needs to. In her opinion she felt that virtual classroom is even more organized because students will need to raise their hands to ask or answer questions.

"According to my own observation, when students study in

virtual classroom, they can still get a reply from the teacher in time. For example, in the virtual classroom, I can often see students suddenly interrupt the teacher's lecture and then ask the teacher to answer their questions. I don't think there is much difference between online learning and face-to-face learning at this point." (PC)

In conclusion, all the participants have experienced pleasant encounters on receiving timely feedback from their lectures in an online environment.

CONCLUSION

The findings revealed that the learning motivation of the university students changed when their learning mode changed from physical classroom to virtual classroom. Their experiences in learning virtually stemmed from four aspects identified through the data analysed, namely intensity of learning, focus during learning, supporting peers, interaction, and feedback. This change is reflected in that some or all students feel that after learning in virtual classroom, the overall learning state and self-feeling, their own achievements, learning interest, learning enthusiasm, are not as good as that in physical classroom as the students' motivation learning in a virtual classroom is affected by external factors, internal factors, and autonomy.

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