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BLENDED LEARNING READINESS AND ITS WAY FORWARD: THE CASE OF UNDERGRADUATES OF UNIVERSITI UTARA MALAYSIA

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ABSTRACT

Most students at higher education institutions (HEIs) are currently Generation-Z, and they are exact synonyms with information and communication technology. Therefore, HEIs should adopt a modern way of delivering knowledge to the students, such as blended learning. Blended learning is a combination of face-to-face and online learning methods in the teaching and learning process. The objective of this study is to determine the readiness of undergraduates in public universities towards blended learning. Data was collected from 283 undergraduate students from Universiti Utara Malaysia using a questionnaire and was analysed descriptively. The result shows that almost 75% of the students are aware of the blended learning method, and nearly 70% of the students have participated in the blended

learning. Overall, the students have a high readiness to embark on the blended learning approach, but with some improvements needed. The study provides insights into understanding the current state of students' preparedness towards blended learning and how the university should take appropriate actions to overcome the limitations faced by the students so that the benefits of blended learning can be optimised.

Keywords: blended learning, undergraduates, readiness level

INTRODUCTION

The recent outbreak of the Novel Corona Virus 2019 (Covid-19) pandemic has seen many economic activities such as business, education, training and social rituals, to name a few, around the globe have been desisting for a moment. Until today, there is no sign that the pandemic will be end soon. Knowing that the current development of information and communication technology (ICT) is remarkably advanced, certain economic activities should not be stopped as the advances of the ICT should be taken advantage of.

The significant role of ICT can no longer be denied. Various sectors and affairs have widely used it. The education sector is not exceptional in this matter. Realising that the ICT environment will increasingly be moving forward has urged HEIs in Malaysia not to remain in the comfort zone of having only the face-to-face classroom teaching but to move a step further on the methods of conducting classes. Entirely relying on face-to-face classroom-based teaching and learning, which requires lecturers and students to be in the physical classroom, is no more relevant as learning through the Internet or online learning is currently becoming more popular and have started to take place in various HEIs around the world to make teaching and learning becomes much easier, convenient and attractive. Many attractive teaching tools are now made available in the online platform that lecturers and students can use. In addition, the online teaching and learning session promises that the sessions can still be carried out even if the surrounding conditions do not allow the face-to-face classroom to occur, such as the Covid-19 pandemic that hits the world recently.

HEIs in Malaysia is aiming towards globalised online teaching and learning where the learning process can take place with no geographical

barriers. The online-based medium opens up great opportunities for universities to bring more students from abroad. Apart from providing the local students with the opportunity to have a first hand and fresh experience mingle with the international students to develop better communication skills, they also can learn other cultures, and share ideas, skills and valuable experience. Online teaching and learning also provide economic benefits to the country. This fact shows that it is time for the HEIs to think about online teaching and learning seriously. It offers various advantages, including widening the knowledge and experience horizons and bringing more income to the universities and the country, mainly if the abroad students intake increased.

The numerous advantage of the ICT has encouraged the government to set up a strategic plan in the Malaysia Education Blueprint 2015-2025 (Ministry of Education Malaysia, 2013). At the initial stage, all public universities are encouraged to use a blended learning approach for their teaching and learning purposes. Primarily, blended learning is about conducting classes using two methods: face-to-face and online teaching and learning tools. The idea of combining these two methods of teaching and learning is not a new concept, as blended learning has come into existence since the early 21st century (Attaran & Zainuddin, 2018). Since the introduction of blended learning in Malaysia in 2015, the blended learning approach began to be slowly accepted by the HEIs due to the need for financial, physical and skills preparation. From time to time, it is believed that the acceptance and the implementation of blended learning will become more widespread depending on the readiness in terms of facilities and skills owned by lecturers and students.

According to the Malaysia Education Blueprint 2013-2025, the Ministry of Education (MOE) has set 2015-2016 as the Initial Stage of implementing blended learning in all higher education institutions, particularly the public university (Ministry of Education Malaysia, 2013). In the initial stage, MOE aims for 30% of the course provided by any higher education institutions to use the online-pedagogy. Meanwhile, the year 2017-2019 is labelled as the Enabled Stage, where at least 40% of the course provided by the institutions applies the online pedagogy approach. Finally, the year 2020-2025 is labelled as Optimum Stage, where at least 50% of the course provided applies the online pedagogy form of teaching and learning.

It is common for any new practices to take some time before their complete acceptance and implementation. It is because people and institutions need time to adapt to a new method of teaching and learning. Implementing blended learning, in particular the online-based teaching part, requires universities to have a high quality of information technology (IT) infrastructures and the familiarisation to both their lecturers and students with the online teaching technologies. Therefore, the purpose of this study is to obtain an insight into the readiness of the undergraduate students in the Universiti Utara Malaysia (UUM) towards the application of blended learning. Specifically, the objectives of this study are:

- a) To determine the level of awareness towards blended learning among students.
- b) To determine the level of readiness towards blended learning among students.

In UUM, the university's IT department developed the UUM Online Learning platform, i.e. UUMIT, to provide virtual space for the students and lecturers to use the Internet in conducting their teaching and learning activities. The UUM Online Learning platform, which uses Moodle Learning Management System, is a simple e-learning application that gives virtual room for both lecturers and students to interact with each other virtually. Among the modules available in UUM Online Learning are submissions of assignment, chat, quiz, notes and forum discussion, which are executed on online basis.

The insights into the students' readiness towards blended learning are very much pivotal for UUM to understand the current state of their students' readiness to the new style of teaching and learning. It also allows the university to arrange better plans to ensure its aims and objectives regarding blended learning are achievable. Apart from that, the uncertainties of sudden outbreaks, for example, natural disasters such as floods and sickness such as the recent Covid-19 pandemic, making face-to-face classroom-based teaching impossible to be conducted. But, with the advancement of ICT, the pandemic or any other disastrous incidents should not be the reasons for lecturers to cancelling classes or universities to deferring semesters. Realistically, ICT is the tool that provides an alternative medium to face-to-face classroom-based teaching, and the learning session can still proceed as usual.

LITERATURE REVIEW

Face-to-Face Classroom Method

The face-to-face classroom method has been used for many years. Lecturers predominantly play the leading roles and are responsible for moderating and regulating the flow of the teaching and learning processes in the classroom. On the other hand, the students are expected to gain a deeper understanding of a subject by completing the assignments, tutorials and projects. Hence, the lecturers are the primary reference that students have if they want to refer to them. In addition, face-to-face classroom teaching is conducted in a synchronous environment that requires the same students' time and place for the learning sessions to occur.

Despite its grim atmosphere, there is one uniqueness of face-to-face classroom teaching that is not possessed by online teaching. The face-to-face classroom has a significant advantage of direct and actual interaction between the lecturers and students and between the students themselves (Black, 2002). Be in the classroom together with lecturers and students create a human direct contact element between lecturers and students. The feature helps to create a safe, trust and respectful feeling from the students to their lecturers. Subsequently, lecturers have an opportunity to know each of their students personally in a more close and respected relationship and ultimately feel the honour to give the students advice and motivation on an individual basis.

Chickering and Gamson (1987; 1999), who wrote "Seven Principles For Good Practice in Undergraduate Education," mentioned good practice that develops reciprocity and cooperation among students. The authors claimed that learning is best when it involves teamwork rather than a lonely journey. Being in a team and sharing ideas and responding to others helps improves one's thinking and deepens understanding. This only can be effectively acquired in face-to-face classroom-based teaching.

Online Classroom Method

Online learning is defined as a learning experience through Internet or online networks where the interaction between students and lecturers and among other students takes place even without a physical space

(Singh & Thurman, 2019). The online classroom can occur in a synchronous or asynchronous mode, where the teaching and learning activities can happen from anywhere at any time. Although direct or face-to-face communication between lecturers and students is lacking or very limited, the lecturers and students still get connected virtually.

The teaching and learning sessions can occur simultaneously (Harasim, 2000). The interaction between lecturers and students or among students happens in real-time. When this occurs, students can directly ask their lecturers if they have any queries regarding the subject contents. Students also can discuss and interact with other students on the spot, despite their physical distance.

On the other hand, the online classroom method could also be conducted in asynchronous mode. This is done to cater to the problems such as internet access and time limitations that lecturers or students may face. Lecturers may upload their teaching materials and requires students to do their learning at their own convenience time. Any queries from students can be raised using the online medium tools provided in the platform and entertained by the lecturers at different times. It may sound easy for some people if they are the kind of person who can work or learn independently. But for those who prefer a formal, direct and actual interaction with lecturers or students will not favour online learning. Asynchronous learning enables students to expand opportunities for interaction, discussion and reflection beyond time and infrastructure limitations (Harasim, 2000).

ICT provides advantages in implementing online learning where more updated and exciting resources are made available on the Internet for lecturers to share with students. Apart from that, students also benefit from the ICT where the students can get extra resources and not depend only on the lecturers' resources. In this way, students can gain more information, be more knowledgeable and resourceful. Studies have found that students' perception of easiness, usefulness and intention towards online learning has helped them improve learning performance and satisfaction (Alamri et al., 2019). The lecturers also are no more restricted to the slides presentation anymore. Lecturers may use video clips available on the Internet, held video conferencing with industries or practitioners, nationally and globally, so that students can get fresh inputs from the real world. In other words,

the online classroom allows more interactive activities to occur and subsequently gain better involvement from the students. The use of ICT makes education endless and borderless.

The online classroom may also become a golden opportunity for those already working and who want further study. It allows this group of people to attend the virtual classes due to their busy work schedules. Although not all lecturers may see the virtual classroom as a feasible option, many agreed that the benefits outweigh the drawbacks (Black, 2002).

Blended Learning (Hybrid Classroom)

Blended learning, or also known as a hybrid classroom, refers to a combination of face-to-face and online instructional activities. It means that blended learning incorporates both synchronous and asynchronous modes of learning activities. According to Boelens, De Wever and Voet (2017), blended learning can stimulate and support the learning process.

In applying blended learning, lecturers need to be creative and ingenious in planning their teaching materials and the delivery methods that they want to use for their teaching purposes. Lecturers should plan different teaching and learning activity that suits face-to-face mode and online mode. In this way, both independent learner and non-independent learner priorities are taken care of.

According to Fearon, Starr, and McLaughlin (2011), the uniqueness of blended learning that incorporates both face-to-face and online teaching and learning activities increases the interaction between students and lecturers as the pedagogy becomes more interactive and triggers communication with each other. As a result, the teaching and learning process in this century becomes increasingly stimulating and fun.

Bonk, Kim and Zeng (2006) found that HEIs are currently focused on the blended learning approach. It is consistent with today's life living in the digital era. It might be challenging initially to adapt to the new teaching delivery mode, but giving times to adapt to the current or modern style of teaching and learning mode will bring

various advantages back to the HEIs and the students. The researchers also claim that the increasing implementation of blended learning in higher education institutions has been expected. Vaughan & Garrison (2006) report that the blended learning approach has received good feedback from the faculty and students. Apart from that, blended learning enables distance learning to become more comfortable as it offers the ability to review material at any time and place using the online platform provided by the institutions (Yilmaz & Orhan, 2010).

Readiness Towards Blended Learning

The fast-changing world of ICT has seen people of all ages try their very best to cope with the technology. To catch up with the technology requires people to spend money to buy ICT devices and put on effort and time to learn using the technology. However, not every person is affordable to purchase the devices as they are very costly. They also need time to master the skills in using the technology. Mastering the technology may be relatively easy for the millennial or Generation-Y compared to Generation-X because they live in the age of the digital world. Generally, people are ready for technological advancement when they are well equipped with the resources (tools, knowledge, skill, and facilities).

Student's readiness for blended learning can be determined in various ways. Rasouli, Rahbaniya & Attaran (2016) researched students' readiness for e-learning in higher education institutions in Iran. The research measured the readiness in terms of skills with computer and Internet, communication and collaboration skills, cognitive skills and self-learning skills. The study found that students have high communication and collaboration skills relative to other types of skills. Mohd Nor & Abu Kasim (2015) studied students' readiness on the blended learning using three dimensions: ease of use, usefulness, and attitude as proposed in the Technology Acceptance Model (TAM). The findings verify that all of the studied variables are factors that influence students' readiness towards blended learning. A similar study was conducted in Malaysian universities by Alamri et al. (2019).

Meanwhile, a study by Adams, Sumintono, Mohamed, & Mohamad Noor (2018) examined students' readiness in terms of technological skills, technology usage, technology availability, self-directed learning,

computer and internet efficacy, and attitude. The study conducted in HEIs in Malaysia found that students are ready for e-learning with a high readiness in technology skills. Thus, students' readiness in skills, psychological and facilities are essential in ensuring a successful implementation of blended learning in higher education institutions.

Besides the factors mentioned above, students' readiness is also determined by their perceptions towards the usefulness and challenges of using blended learning. Among the benefits of blended learning that they may perceive are enhanced collaboration and communication, increased flexibility and efficiency, easy accessibility, and saving times and money (Azizan, 2010). On the other hand, the challenges towards blended learning are the lack of IT skills and experience in online education (Holley & Oliver, 2010). Another challenge that students have to adapt to is the new culture of learning (Albeikan & Troudi, 2010). Students may also feel less emotionally connected with the lecturers and other friends when interacting online than in the face-to-face classroom, especially in discussion and collaborating activities (Paechter & Maier, 2010). It may lead to low motivation for the students to engage in blended learning.

The students' readiness towards blended learning is crucial to be examined as it provides valuable inputs to the universities and may assist the institutions to design a better plan involving the teaching and learning processes applied by the institutions. In the HEIs, students come from different backgrounds, particularly the economic background. There is a possibility that some students are not ready for the blended learning approach. Students may need time to learn using and familiarise themselves with the technology, spend money to buy a more up-to-date and compatible laptop, mobile phone or other required gadgets and spend money to subscribe to high-speed mobile data. In this study, all these factors are regarded as students' readiness towards the blended learning approach.

Generation-Z and technology acceptance

Generation-Z refers to those individuals who were born in early 2000 until 2020. They are known as the generation that is familiar with digital and electronic technology also. They are labelled as more techno-savvy, more prone to multitasking and more collaborative

in work than any previous generational cohort. Generational cohort refers to groups of people born in the same 20-year time span (Kruse, 2004). The generational cohort for the 20th and 21st centuries are shown in Table 1.

Table 1

Demographics by Generation

Cohort	Year of birth
GI Generation	1900 to 1921/1924
The Silent Generation	1922/1925 to 1943/1946
The Baby Boomers	1944/1947 to 1960/1963
Generation-X	1961/1964 to 1978/1980
Millenial/Generation-Y	1980/1982 to 2000/present days
New Silent Generation/ Generation-Z	2000/2003 to 2020/?

(Source: Jones, Jo and Martin, 2007)

Today's tertiary students are from Generation-Z, and they have been introduced to technological devices since they were teenagers and mostly very computer-literate. A study done by Kruse (2004) found that 85% of Millenials own and regularly use the computer; 72% check email daily; and 26% use instant messaging. Generation Y onwards are found to possess different attitudes and aptitudes to their predecessors. They are characterised by the ability to multitask, and the Internet is regarded as an essential part of their daily life. Not only computers have become their close friend, but they also use mobile phones extensively. As times change and technology constantly advances, Generation Z is accustomed to a fast-paced world.

METHODOLOGY

This study is preliminary and cross-sectional research, where data is collected at one point in time to provide a snapshot of a particular phenomenon. In line with the Malaysia Education Blueprint that listed 2015-2016 as the Initial Stage of implementing blended learning, the data of this study was collected in 2016 to examine the readiness of the students to embark on blended learning. This study consists of all undergraduate students from three (3) different academic colleges in UUM. As of October 2016, there are 17,077 undergraduates students

reported by the Academic Affairs Department of UUM. A proportionate random sampling method was used in selecting samples. The chosen sample size is 380, and it is considered appropriate as recommended by Krejcie and Morgan (1970). However, the returned questionnaires are 323, i.e. equal to 85% of the response rate, and only 283 of the returned survey are usable for analysis.

The data was collected using a questionnaire. The items in the questionnaire were adapted from various sources, as listed in Table 2. The questionnaire has several sections containing questions about the demographic profile and the awareness of blended learning from the respondents, followed by the students' readiness towards blended learning. The final section includes questions about student's understanding of the usefulness and challenges of blended learning. A 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) was used in the questionnaire.

Table 2

Sources of Items Measurement

Items	Description	Number of items statements	Source of items statements
Skill readiness	The observable and measurable technical competencies involving students' capabilities with computers and the Internet.	6	Trayek et al. (2016)
Psychological readiness	Students' mindset and belief to proactively exploit existing IT resources or embrace IT innovations create blended learning opportunities.	12	Trayek et al. (2016)
Facilities readiness	The proper equipment/ infrastructure readiness and provision of technical support provided by both students and the university.	4	Trayek et al. (2016)

(continued)

Items	Description	Number of items statements	Source of items statements
Awareness of the challenges of blended learning	The identified factors that are expected to impede students from participating in blended learning.	4	Ogheneovo (2015)
Willingness to participate in blended learning	Students' attitudes and intentions to participate in blended learning.	3	Hayes, Glynn & Shanahan (2005)
Self-efficacy	Students' beliefs about their efficacy to manage blended learning demands influence emotional states and motivation.	6	Friedman & Kass (2002)
Awareness of the usefulness of blended learning	The degree to which students believe that blended learning would enhance their performance.	5	Bangor, Kortum & Miller (2008)

The data was analysed descriptively using Statistical Package for the Social Sciences (SPSS). Descriptive analysis was used in this study because it is aligned with the study aim, which is to identify the level of awareness and readiness towards blended learning.

FINDINGS AND DISCUSSIONS

Findings

The analyses of results are divided into four parts: (1) demographic profile analysis, (2) awareness of blended learning, (3) essential readiness towards blended learning, and (4) students' readiness and awareness towards blended learning implementation.

Demographic Profiles

Table 3 shows the undergraduates students' demographic profile. The analysis results in Table 3 show that 79% of the respondents are female, and almost 60% are Malay. The majority of the respondents are in their first semester. The respondents well represent students from the three (3) academic colleges in UUM: College of Business (COB),

College of Art and Sciences (CAS) and College of Law, Government and International Studies (COLGIS). The well-distributed data obtained from students with diverse backgrounds, ages, ethnicity, nationality and courses are suitable to represent the population of the undergraduates in the UUM.

Table 3

Demographic Profile of Students (n=283)

Category	Description	No. of students (n)	Percentage (%)
Gender	Male	59	21%
	Female	224	79%
Races	Malay	168	59%
	Chinese	76	27%
	India	29	10%
	Others	10	4%
Nationality	Malaysia	278	98%
	China	2	0.7%
	Indonesia	2	0.7%
	Somalia	1	0.6%
Semester	1	165	58%
	2	14	5%
	3	67	23%
	4	5	2%
	5	17	6%
	6	1	1%
	7	14	5%
College	College of Business (COB)	240	85%
	College of Art & Science (CAS)	31	11%
	College of Law, Government and International Studies (COLGIS)	12	4%

Awareness of Blended Learning

Table 4 shows the students' awareness of blended learning. Results in Table 4 show that almost 73% of the students have heard about blended learning, and lecturers are the primary source who tells them about blended learning. Nearly 70% of the students knew that UUM requires lecturers to apply blended learning for their teaching

purposes. Accordingly, almost 70% of the students claim that they have participated in blended learning. The participants are sending assignments online (97%) and participating in online discussions with lecturers (53%). Despite that, only 54% of the students claim that they sometimes enjoyed blended learning because they face internet problems and consequently cannot submit their assignments, which contribute to frustration.

Table 4

Students' Awareness of Blended Learning

Questions	Description	No. of students (n)	Percentage (%)
Have you heard about blended learning previously?	Yes	206	73%
	No	77	27%
Who tells you about blended learning?	Lecturers	204	72%
	Friends	50	17.5%
	UUM Email	11	4%
	Poster	1	0.5%
	Others	17	6%
Do you know UUM's lecturers should apply blended learning?	Yes	195	69%
	No	88	31%
Have you previously participated in blended learning?	Yes	189	67%
	No	94	33%
Do you submit assignments online as asked by lecturers?	Yes	275	97%
	No	8	3%
Do you have experience having an online discussion with lecturers?	Yes	149	53%
	No	134	47%
Your feeling on blended learning	Enjoy	111	39%
	Not enjoy	19	7%
	Sometimes enjoy	153	54%

Overall, the results show that students have a good level of awareness regarding blended learning, and they have also using blended learning in almost all of their classes. It shows that they are not a novice in the blended learning environment and the experience they have will assist their involvement in the next blended learning activity.

Basic Readiness Towards Blended Learning

The students' basic readiness towards blended learning is as shown in Table 5. Results in Table 5 show that almost 99% of students have smartphones and laptops. More than 50% of the students subscribe to a mobile data plan. In addition, nearly 98% of the students use their own devices to download notes and do other works related to their study. The results indicate that, in terms of basic personal technology infrastructure and devices, the students are well-equipped, contributing to the readiness to participate in blended learning.

Table 5

Basic Readiness Towards Blended Learning

Basic readiness description	Yes	No
Do you currently own a smartphone?	280 (98.94%)	3 (1.06%)
Do you currently own a laptop?	280 (98.94%)	3 (1.06%)
Do you currently own a tablet computer?	37 (13.07%)	246 (86.93%)
Do you subscribe mobile data plan?	189 (66.78%)	94 (33.22%)
Do you use your devices to download lecture notes?	276 (97.53%)	7 (2.47%)
Do you use your device to do other works related to your study?	276 (97.53%)	7 (2.47%)

Level of Readiness and Awareness Towards Blended Learning Implementation

This study also measures students' skills readiness, psychological readiness and facilities readiness towards implementing blended learning. In addition, students were also asked for their opinions regarding the challenges and usefulness of blended learning and their self-efficacy and willingness to use the blended learning. Table 6 shows the descriptive results of the level of readiness and awareness towards blended learning.

Based on Table 6, the results show that skills readiness has the highest mean value of 4.48. It indicates that students firmly believe that they

have the appropriate skills to embrace blended learning. Meanwhile, the mean value for psychological readiness and facilities readiness is moderate, i.e. 3.42 and 3.35, respectively. It implies that students have adequate mental capabilities and facilities to embark into blended learning.

The results also show that the mean score for willingness, self-efficacy, and awareness of the usefulness items are moderately high, i.e. 3.65, 3.65 and 3.67. It signifies a relatively high awareness of the usefulness of blended learning, besides the moderate level of self-efficacy and willingness to use blended learning among the students. Meanwhile, the mean score for item awareness on the challenges is the lowest, i.e. 3.15. It reflects that students are slightly prepared for the challenges in using blended learning.

Table 6

Descriptive Analysis of the Level of Readiness and Awareness Towards Blended Learning

Readiness and awareness description	N	Minimum	Maximum	Mean
Skills readiness	283	1.17	5	4.48
Psychological readiness	283	1.42	4.42	3.42
Facilities readiness	283	1	5	3.35
Awareness on the challenges	283	1	5	3.15
Willingness	283	1.67	5	3.65
Self-efficacy	283	1	5	3.65
Awareness on the usefulness	283	1.4	5	3.67

Adapting the generic scales of readiness from Ouma, Awuor and Kyambo (2013), as shown in Table 7, the overall students' readiness can be categorised as ready to embark into blended learning. Meanwhile, the psychological readiness, awareness of students' usefulness, self-efficacy, and willingness to get involved in blended learning can be categorised as a ready state but needs a few improvements. In the meantime, students seem to be unprepared for the facilities and face challenges of blended learning, thus requiring some modification in the future.

Table 7

The Scale and Indication of Means

Scale of means	Indication
0 - 2.6	Not ready, needs a lot of work
2.6 - 3.4	Not ready, needs some work
3.4 - 4.2	Ready, but needs a few improvements
4.2 – 5	Ready to go ahead

(Source: Ouma, Awuor and Kyambo, 2013)

Overall, the means scores obtained in the study (as shown in Table 6) show evidence that the students have a high level of readiness towards blended learning but need to improve in certain aspects. It is consistent with the facts of Generation-Z, who are primarily techno-savvy and computer literate.

DISCUSSION

The statistics in the demographic profile analysis show that most of the respondents are female, and they are in their first semester of study. On average, most of the respondents are in the age of early 20s. In terms of their awareness about blended learning, most of them claimed that they know about blended learning and have experienced participating in blended learning. Despite the high participation in blended learning, the majority of the respondents claimed that they only enjoy blended learning occasionally due to the problems of accessing the Internet, which later became obstacles for them to submit their online assignment and conduct an online discussion with lecturers and friends. Nevertheless, students do not hesitate to participate in blended learning. They accept if their lecturers apply the blended learning in the class as they found blended learning is more interesting than fully face-to-face classroom.

In terms of students' readiness towards blended learning, most students are highly ready and prepared for their technology skills, psychology, and necessities. Similar results are found in a study by Adams et al. (2018) and Al-Rahmi et al. (2018) in selected HEIs in Malaysia. The result is reasonable because the students are among the Millennials that

grows up in the technology and digital environment. Growing up in the technology and digital era gives them credit for facing the challenges of the ICT world. It consequently influences their level of readiness towards blended learning in their tertiary education level. Knowing the students' level of readiness towards blended learning will assist UUM in finding out the appropriate steps that the university should take in preparing the needed facilities, for example, by offering help desks to assist both lecturers and students with online-based problems learning tools and platform. It will help the students to feel more comfortable with the new teaching and learning medium.

In terms of self-efficacy, the students believe that they can participate in blended learning and find no significant difficulties to adapt to the new learning style. It is consistent with Anthony et al. (2020), who also found that self-efficacy is one of the main factors influencing students' perception of blended learning in Malaysian HEIs. The findings from the study showed that the students contented that they save money and times when the assignments are required to be sent into the online platform.

However, students are not very keen to face the challenges of using blended learning. The challenges such as lack of ICT technical knowledge and lack of real human interaction might lead to low motivation among the students to use blended learning (Holley & Oliver, 2010). To overcome this issue, the university should provide extensive support services and help desk to the students to give them information and valuable knowledge on dealing with the problems they might face when dealing with ICT matters. The university could also provide counselling services to encourage them to use blended learning (Albeikan & Troudi, 2010; Ma'arop & Embi, 2016) for their advantages. The Ministry of Higher Education could also assess the implementation of blended learning in the university and improve the education policy, especially in evaluating the Malaysia Education Blueprint 2015-2025.

CONCLUSION

This study aims to obtain an insight into the readiness of undergraduate students in the Universiti Utara Malaysia (UUM) towards the

application of blended learning. This study found that undergraduate students in the UUM have a high level of awareness and readiness towards the blended learning approach. Even though there are some limitations they currently face, realising the tremendous advantages offered by the online learning platform has made them enthusiastic and looking forward to participating in blended learning. The university must take appropriate actions to overcome the limitations faced by the students so that the benefits of blended learning can be optimised by both parties, students and the university (including teaching staff).

The findings from this study may provide input to the online learning policy at the university and national levels. Ensuring that the Malaysia Education Blueprint 2015-2025 is a success, all HEIs should outline a more comprehensive plan involving blended learning and continuously evaluate its progress. HEIs should focus on the technical parts, such as familiarising the students and teaching staff with the latest technology and creating a culture of enjoying blended learning. As indicated in the results, students are already aware and ready to engage in blended learning. Therefore, it is believed that the students are more prepared in recent years, especially during the Covid-19 pandemic that happens recently, which results in a dramatic change in the education landscape. There is an unprecedented rise in online learning, and this assists all parties; students, lecturers and university, to become more adaptive to the online learning component of blended learning. However, a forced transition from blended learning to fully online learning during the pandemic may cause shock among students who are not ready in terms of psychology and facilities. It opens an avenue for further investigation in a future study.

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