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PREFERENCES, PERCEPTION OF READINESS AND SATISFACTION TOWARDS ONLINE DISTANCE LEARNING AMONG UNDERGRADUATES IN MALAYSIA DURING COVID-19 PANDEMIC

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Abstract

While there is abundance of studies regarding online distance learning (ODL) among university students, information regarding ODL among undergraduates in Malaysia is limited, more so during the Covid-19 pandemic. This was a cross-sectional online survey involving a total of 308 undergraduates from various universities in Malaysia aimed to evaluate undergraduates' perception of readiness and satisfaction towards online distance learning, platform preferences, attitudes and motivations, barriers towards ODL and also factors contributing to these variables. Questionnaires that include Online Learning Readiness Scale (OLRS) and additional information regarding challenges faced by undergraduates and their satisfaction levels towards ODL were used in this survey. The results showed that the undergraduates preferred a combination of face-to-face and online learning (68.8%) rather than online learning alone (5.5%). Majority of the respondents preferred having synchronous classes as compared to asynchronous classes (37.7%) and they rated Google Meet as their most preferred platform for their classes. In addition, the undergraduates shown fairly good

perception and neutral satisfaction towards ODL. Factors such as ethnicity and the state where the undergraduates lived were found to more likely cause them to have poor satisfaction towards ODL. While, undergraduates who have handphones have a higher satisfaction level towards ODL. Several challenges were encountered throughout ODL with the most challenging was the unsupportive environment, which in turn causing the undergraduates to be distracted and losing focus during ODL. Our findings highlighted that majority undergraduates preferred a combination of face-to-face and online learning rather than online learning alone. These findings will be beneficial for educators in the planning for future teaching and learning methods. Future studies with a larger sample size are needed to evaluate the independent risk factors related to low motivations, perceptions and satisfaction among undergraduates using ODL.
Keywords: COVID-19, Malaysia, Online Distance Learning, Undergraduates

1.0 INTRODUCTION

The year 2020 witnessed the implementation of various movement restrictions and physical distancing measures to curb the Covid-19 pandemic worldwide. Many sectors were affected due to these measures, which included educational institutions. Since then, face-to-face teaching and learning (T&L) methods has been changed to online distance learning (ODL) as an alternative to enable the students and educators to stay in touch. (Abbasi et al 2020). Various platforms can be used for ODL such as the universities online application, social media, or websites (Gunawan, Ni Made Yeni Suranti 2020). The approaches in the ODL can be print, audio, televisuality, multimedia, established web and emerging web-based that are synchronous or asynchronous (Burns 2011).

According to the Commonwealth of- learning (2020), the term ODL means the provision of distance education opportunities in ways that seek to mitigate or remove barriers to access, such as finances, prior learning, age, social, work, or family commitments, disability, incarceration or other barriers. Synchronous T&L means that the activity is happening, existing or arising exactly in the same period while asynchronous T&L means that it is not simultaneous or concurrent in time (Merriam-Webster). Further, synchronous type of T&L is when a group of people attends the class together in real-time and they can have the question-and-answer session on the spot (Merriam-Webster). (Cambridge Dictionary) Whereas, asynchronous T&L allows students to choose their own times to study the recorded lessons and post questions online after going through the topics.

There are abundance of studies regarding ODL among university students worldwide

(Bdair et. al. 2021, Coman et. al. 2020, Dhawan S. 2020, Faize & Nawaz 2020, Kurniawan & Anggraini 2021, Mahdy 2020, Ranjbar et. al. 2021, Schlenz, M. A et. al. 2020, Wijaya T. T. et. al. 2020). However, information regarding ODL among undergraduates in Malaysia is limited, more so during the Covid-19 pandemic. Previous studies on ODL during pandemic and a crisis-like situation were mostly conducted in western countries (Dhawan 2020). Nevertheless, it is worth noting the handful existing studies in Malaysia. A study by Siti et al (2020) found that the computer/Internet literacy competency (CIL) in students were high, but self-directed learning (SDL), and motivation for learning (MOL) level were low (Allam S. N. S. et. al. 2020). In contrast, Nujid and Tholibon (2021) suggest that ODL provides a flexible learning condition to the students in which student can learn at their own pace. The discrepancies in findings from previous studies lead to a need for more follow-up research (Nujid & Tholibon 2021).

Thus, in this study, we aimed to evaluate the undergraduates' preferences, readiness and satisfaction towards ODL during the COVID-19 pandemic. In addition, the barriers faced by undergraduates during ODL and the factors associated with the readiness, attitudes and satisfaction among undergraduate towards ODL were also evaluated. The findings of this study will provide information and understanding about how ODL may further be improved.

2.0 METHODS

2.1 Study Design and Participants

This was a cross-sectional online survey conducted among Malaysian undergraduates aged 18 years and above. The recruitment of the undergraduates was done through social media (Telegram, WhatsApp, Facebook, Instagram, Twitter) and emails. Undergraduates who were interested to participate were contacted by the research team through phone calls or WhatsApp. Then, an informed consent from each participant was collected via emails or WhatsApp following which, participants were provided a link to access google forms inclusive of information sheets and questionnaires, also via an email or WhatsApp. Undergraduates who have not been undergoing ODL sessions and non-Malaysians were excluded from this study.

2.2 Study Ethics and Data collection

The study was reviewed and approved by the Research Ethics Committee of Universiti Kebangsaan Malaysia (Ethics Number: JEP-2021-504). Data on socio demography which included name, age, gender, race, marital status, household income, scholarship, studying university, faculty, programme of study, state of living, living arrangement, internet access at home, internet access at university, internet accessibility and type of electronic devices used for ODL were collected prior to the survey on ODL.

Preference on ODL methods

Respondents were asked about their most preferred online teaching method whether synchronous or asynchronous, their preferred platform and whether they favored the combination of online and offline class, or solely online or offline.

Perceptions on Readiness, Challenges and Satisfaction towards ODL

Online Learning Readiness Scale (OLRS) was used to measure the participants' perception of readiness towards ODL. The score was in likert scale, 1-5, with higher scores indicating greater agreement. The scale consists of five aspects of learning namely:

a. Computer / Internet self-efficacy: the online learners' ability to perform proper computer and Internet skills.
b. Self-directed learning: the online learners' responsibility for the learning context to achieve their learning objectives described by Garrison (1997).
c. Learner control (in an online context): the online learners' self-control over their learning and the online learners' efforts to direct their own learning with maximum freedom.
d. Motivation for learning (in an online context): the online learners' learning attitudes towards online learning.
e. Online communication self-efficacy: the online learners' adaptability to the online setting through questioning, responding, commenting, and discussing.

Referring to Hung et al. (2010), the values of composite reliability for the five subscales were acceptable in which the values were equal or above 0.7. Convergent validity was evaluated as well by using average variance extracted (AVE), which should exceed 0.50 (Fornel & Larcker 1981).

In addition, we also collected information on challenges faced by students while studying online which included: a) Technical conditions which included the electronic devices, internet connectivity and accessibility, b) Lecturer's teaching style which was mainly about the lecturer's adaptation of teaching skills to carry out effective online teaching, and c) Environment factors and interaction regarding the motivation or support from lecturers and friends, and surrounding distractions. While satisfaction of students towards online learning was asked based on the development of interpersonal and socializing skills, changes of family ties, learning process facilitation and time flexibility in learning.

2.3 Statistical analysis

All the information gathered through the survey were analyzed using Statistical Products and Service Solution (SPSS) version 25.0. Descriptive analysis and logistic regression analysis were used in this study. Means and percentages were used to describe the participants' characteristics, distribution of preferred ODL methods, perceptions of readiness, attitudes & motivation, satisfaction level, and barriers faced. Participants who answered 'strongly disagree' and 'disagree' in the OLRS domains were grouped as 'poor perception', 'poor motivation and satisfaction', and 'poor environmental condition'. Univariate analysis using logistic regression was then conducted to identify factors associated with 'poor perception', 'poor motivation and satisfaction', and 'poor environmental condition'. Results are shown in odds ratio with 95% Confidence Interval (95% CI). Significance levels were set at p-value<0.05.

3.0 RESULTS

3.1 Participants' characteristic

Data on perceptions of readiness, satisfaction, motivations, barriers and challenges towards ODL were available in 308 participants. The respondents' mean (standard deviation) age was 21.88 (± 1.21) years, with the majority of them were between 20 and 25 years old (86.7%), females (75%), from Malay ethnic group (60.4%), from public universities (92.9%), third year undergraduates (57.5%) and B40 income group (45.5%). Largest percentage of them were from Selangor state (16.9%), and currently staying with their family (55.5%). The results also shown that most undergraduates used laptops (97.1%), handphones (84.7%) or both with good Internet accessibility for ODL. (Table 1).

Table 1: Respondents' characteristics

Characteristics	**n (%)**
Age (in years)	
<20	33 (10.7)
20-25	267 (86.7)
>25	3 (1.0)
Gender	
Male	77 (25.0)
Female	231 (75.0)
Ethnicity	
Malay	186 (60.4)
Chinese	84 (27.3)

Indian	7(2.3)
Others	31(10.1)
University of study	
Public (IPTA)	286 (92.9)
Private (IPTS)	22 (7.1)
Year of study	
Final year	1 (0.3)
Intern	1 (0.3)
Graduated	1 (0.3)
Year 1	34 (11.0)
Year 2	65 (21.1)
Year 3	177 (57.5)
Year 4	29 (9.4)
Household income group	
B40	140 (45.5)
M40	106 (34.4)
T20	26 (8.4)
State of living	
Selangor	52 (16.9)
Kuala Lumpur	28 (9.1)
Melaka	8 (2.6)
Johor	46 (14.9)
Negeri Sembilan	8 (2.6)
Pahang	15 (4.9)
Terengganu	14 (4.5)
Kelantan	16 (5.2)
Kedah	18 (5.8)
Perak	30 (9.7)
Pulau Pinang	31 (10.1)
Sabah	20 (6.5)
Sarawak	19 (6.2)
Putrajaya	3 (1.0)
Living arrangement	
Single in a dormitory/renting alone	74 (24.0)
Pair/More in a dormitory	28 (9.1)

With family members	171 (55.5)
Renting outside the university with friends	35 (11.4)
Internet accessibility	Median (Min - Max)
Home	4.0 (1-5)
University	4.0 (1-5)
Electronic Device Used for ODL	
Laptop	299 (97.1)
Handphone	261 (84.7)
Tablet	48 (15.6)

3.2 ODL Methods Preferences

In the present study, most of the undergraduates preferred synchronous online learning rather than asynchronous online learning (Figure 1). Regarding the online learning platform preferences (Figure 2), Google Meet (63.3%) was found to be the most preferred online learning platform, followed by Microsoft Team (60.40%) while the least preferred platform is WhatsApp Voice Message (8.40%). As for the preferred learning methods (Figure 3), the combination of online and face-to-face learning is the most preferred learning method (68.80%) whereas exclusive online learning is the least preferred learning method (5.50%) by the undergraduates.

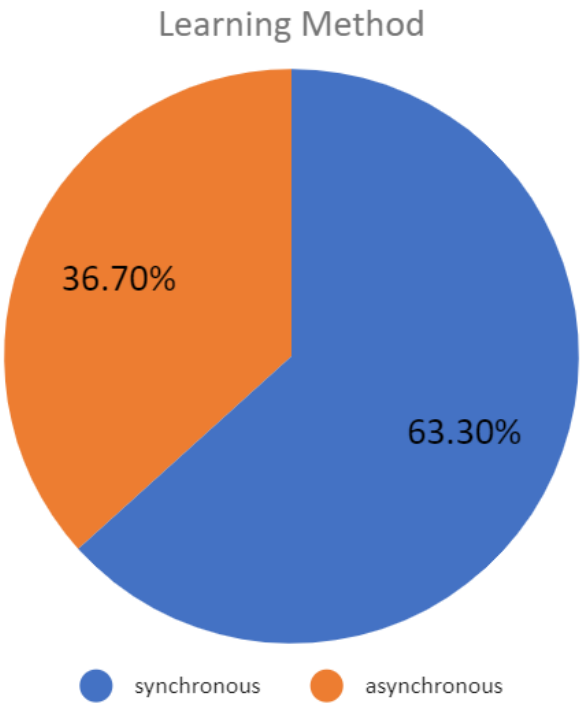

Figure 1: Preferred ODL types among undergraduates

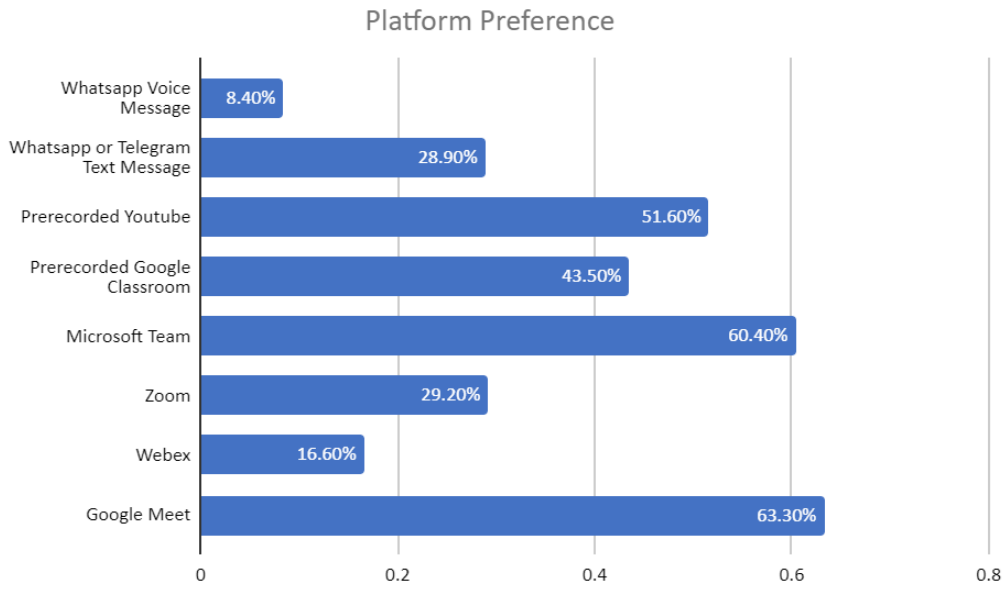

Figure 2: The preferred ODL platforms among the undergraduates

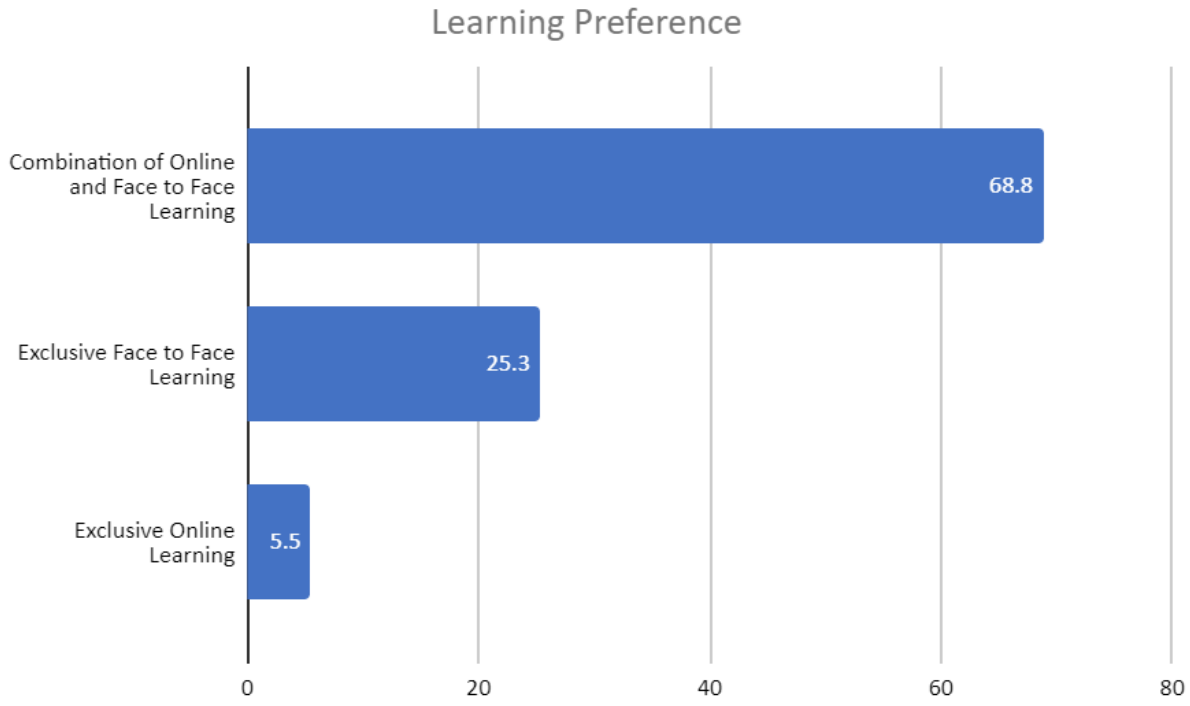

Figure 3: The preferred learning methods among the undergraduates

3.3 Perceptions of Readiness on ODL, Motivations, Satisfaction and Challenges Faced

Table 2 summarizes the undergraduates' perceptions of readiness, attitudes and motivations, satisfaction level and challenges faced towards ODL. The perceptions of readiness of the

undergraduates towards computer or internet self-efficacy was found as ‘good’ with a median score of 4.00 over 5.00, but poor perception on online communication self-efficacy with a median score of 3.67 was found, indicating low confidence in posting questions online (Table 2).

The undergraduates rated themselves as having a ‘fairly good’ attitude and motivation in self-directed learning (median score of 3.60) and most of them neither agreed nor disagreed (neutral) on their ability for time management in learning. However, they rated lower with a median of 3.33 for their learning control (in an online context) with the result showing that most undergraduates were less confident in directing their learning progress and were easily distracted during ODL. Besides, their learning motivation was self-rated rather low with a median value of 3.75 as they felt less motivated during the ODL. Regarding their satisfaction towards ODL, the average score was median 3.20; most of the undergraduates responded ‘neither satisfied’ nor ‘dissatisfied’ (neutral - score 3) to the statements that ‘ODL helps to speed up the T&L process’, ‘ODL as a convenient way of learning’, ‘giving the students more time flexibility in learning’, ‘enable the students to understand the lectures and discussion via online learning’ and ‘enable the students to strengthen their relationship with family members’. The technical conditions such as poor internet connectivity and devices for ODL showed a lower median score of 2.67 (more disagreement). In other words, the undergraduates were satisfied with their internet connectivity. However, lecturers’ teaching styles scored an average median score of 3.14 which is between neutral and agree as the undergraduates agreed that there were too many tasks allocation from their lecturers that need to be completed in a short time. Furthermore, the undergraduates were between ‘neutral’ to ‘agree’ (median score of 3.33) on the environmental factors and interaction, with the lack of motivation during ODL and reduced focus due to distraction from the surroundings were the challenges faced during ODL.

Table 2: Undergraduates’ Preferences, Perception of Readiness, Attitudes & Motivations, Satisfaction Level, And Barriers Faced during ODL

	n (%) / Median (Min - Max)
Online Learning Preference	
I would choose exclusive online learning for the coming semester	17 (5.5%)
I would choose exclusive face to face courses for the coming semester	78 (25.3%)
I would choose a combination between the online and offline courses for the coming semester.	212 (68.8%)

Perceptions of Readiness among Undergraduates towards ODL	
Computer / Internet self-efficacy (Median)	4 (1 - 5)
I feel confident in performing the basic functions of Microsoft Office programs (MS Word, MS Excel and MS PowerPoint)	4 (1 - 5)
I feel confident in my knowledge and skills of how to manage software for online learning	4 (1 - 5)
I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning.	4 (1 - 5)
Online communication self-efficacy (Median)	3.67 (1 - 5)
I feel confident in using online tools (email, discussion) to effectively communicate with others	4 (1 - 5)
I feel confident in expressing myself (emotions and humor) through text	4 (1 - 5)
I feel confident in posting questions in online discussions.	3 (1 - 5)
Attitudes & Motivation of Undergraduates towards ODL	
Self - directed learning (Median)	3.60 (1.2 - 5.0)
I carry out my own study plan.	4 (1 - 5)
I seek assistance when facing learning problems	4 (1 - 5)
I manage my time well	3 (1 - 5)
I set up my learning goals	4 (1 - 5)
I have higher expectations for my learning performance.	4 (1 - 5)
Learner control (in an online context) (Median)	3.33 (1 - 5)
I can direct my own learning progress	3 (1 - 5)
I am not distracted by other online activities when learning online (instant messages, Internet surfing)	3 (1 - 5)
I repeated the online instructional materials on the basis of my needs.	4 (1 - 5)
Motivation for learning (in an online context) (Median)	3.75 (1.25 - 5.00)
I am open to new ideas.	4 (1 - 5)
I have motivation to learn.	3 (1 - 5)
I improve from my mistakes.	4 (1 - 5)
I like to share my ideas with others.	4 (1 - 5)

Satisfaction of Undergraduates towards ODL	
Satisfaction towards ODL (Median)	3.2 (1 - 5)
I like online learning as it speeds up the teaching and learning process	3 (1 - 5)
I like online learning as it is a convenient way of learning	3 (1 - 5)
I like online learning as I have more time flexibility in learning	3 (1 - 5)
I can understand my lectures and discussion via online learning	3 (1 - 5)
I like online learning as I can strengthen my relationship with my family members	3 (1 - 5)
Challenges faced by undergraduates while studying online	
Technical conditions (Median)	2.67 (1 - 5)
I have poor Internet connectivity while learning online	2 (1 - 5)
Poor quality of audio and video	3 (1 - 5)
Slow personal laptop, devices	3 (1 - 5)
Lecturers; teaching styles (Median)	3.14 (1 - 5)
Non-compliance with the schedule in the online environment	3 (1 - 5)
Lack of adaptation of teaching style for the online environment	3 (1 - 5)
Unbalanced teaching style (limited practical teaching)	3 (1 - 5)
Too many tasks allocation that should be completed in a short time	4 (1 - 5)
Lack of clearly formulated requirements	3 (1 - 5)
Lack of ability to maintain students' attention	3 (1 - 5)
Lack of technical skills in using online learning	3 (1 - 5)
Environment factors and Interaction (Median)	3.33 (1 - 5)
Difficult to focus due to distractions from my surroundings	4 (1 - 5)
Lack of motivation due to absence of face-to-face contact with friends and lecturers	4 (1 - 5)
Lack of support from lecturers in the learning process	3 (1 - 5)

3.4 Factors Associated with Poor Perceptions of Readiness, Motivations and Satisfaction, and Environmental Conditions

Referring to Table 3, there was significant ethnic differences in likelihood of having poor motivations and satisfaction during ODL among undergraduates who belongs to "Other Ethnic" (OR=2.29, 95% CI =1.01 to 5.21). Moreover, we found that undergraduate from Sabah state ($p<0.05$) are more likely to report poor motivations and satisfaction towards ODL (OR=3.46,

95% CI =1.03 to 11.68), while undergraduate from Kelantan ($p<0.05$) state were found to have higher odds ratio (OR=5.44, 95% CI =1.07 to 27.64) of reporting poor environmental conditions compared to those from Selangor state, which indicates geographical differences. Undergraduates who used handphones ($p<0.05$) in ODL were found to be less likely (OR=0.39, 95% CI = 0.20 to 0.78) to report poor motivations and poor satisfaction towards ODL. In other words, the undergraduates who used handphones for ODL are more likely to have high motivations and satisfaction towards ODL.

Table 3: Factors Associated with Poor in Perception, Motivation and Satisfaction, and Environmental Condition

Factors	Odds Ratio, OR (95% Ci)		
	Poor Perception of Readiness	Poor Motivation and Satisfaction	Poor Environmental Condition
Age	0.98 (0.71 - 1.36)	1.03 (0.81 - 1.30)	0.90 (0.66 - 1.23)
Gender			
Male	Reference	Reference	Reference
Female	1.05 (0.43 - 2.57)	0.73 (0.39 - 1.36)	1.00 (0.43 - 2.33)
Ethnic			
Malay	Reference	Reference	Reference
Chinese	1.05 (0.43 - 2.53)	0.76 (0.38 - 1.53)	1.50 (0.67 - 3.36)
Indian	UTC	UTC	UTC
Others	1.47 (0.46 - 4.71)	**2.29 (1.01 - 5.21)**	1.47 (0.46 - 4.71)
University			
IPTA	Reference	Reference	Reference
IPTS	0.96 (0.21 - 4.33)	1.61 (0.60 - 4.31)	2.82 (0.97 - 8.25)
Year			
First Year	Reference	Reference	Reference
Non-first year	0.39 (0.15 - 1.06)	0.58 (0.25 - 1.33)	0.59 (0.21 - 1.65)
Faculty			
Health Science	Reference	Reference	Reference
Non Health Science	1.28 (0.59 - 2.75)	1.42 (0.80 - 2.50)	1.17 (0.56 - 2.43)
Household income group			
B40	Reference	Reference	Reference

M40	0.64 (0.25 - 1.64)	0.67 (0.35 - 1.29)	0.94 (0.40 - 2.20)
T20	0.36 (0.05 - 2.86)	0.64 (0.21 - 1.99)	0.75 (0.16 - 3.51)
State of living			
Selangor	Reference	Reference	Reference
W. P KL	6.82 (1.28 - 36.48)	2.14 (0.67 - 6.90)	3.55 (0.78 - 16.15)
Melaka	3.57 (0.29 -44.2)	0.92 (0.10 - 8.64)	UTC
Johor	2.38 (0.42 - 13.65)	1.15 (0.37 - 3.58)	1.56 (0.33 - 7.35)
Negeri Sembilan	3.57 (0 .29 -44.72)	0.92 (0.10 - 8.64)	2.33 (0.21 - 25.66)
Pahang	1.79 (0.15 -21.17)	UTC	2.51 (0.38 - 16.65)
Terengganu	UTC	2.57 (0.63 - 10.50)	2.72 (0.41 - 18.15)
Kelantan	5.77 (0.87 -38.20)	2.14 (0.54 - 8.55)	**5.44 (1.07 - 27.64)**
Kedah	5.00 (0 .76 - 32.77)	1.84 (0.47 - 7.21)	0.96 (0.94 - 9.87)
Perak	1.79 (0 .24 - 13.38)	1.61 (0.49 - 5.32)	1.82 (0.34 - 9.62)
Pulau Pinang	1.72 (0.23 - 12.90)	1.24 (0.36 - 4.30)	1.75 (0.33 - 9.26)
Sabah	6.25 (1.05 -37.37)	**3.46 (1.03 - 11.68)**	2.88 (0.53 - 15.66)
Sarawak	UTC	2.97 (0.85 - 10.39)	0.91 (0.09 - 9.30)
WP Putrajaya	UTC	3.21 (0.26 - 40.31)	UTC
Living Arrangement			
With family	Reference	reference	Reference
Without family	0.87 (0.4 -1.89)	0.80 (0.45 – 1.41)	1.47 (0.71 – 3.07)
Good Internet accessibility			
At Home	0.93 (0.11 - 7.64)	0.97 (0.20 - 4.67)	0.25 (0.06 - 1.03)
At University	1.15 (0.14 - 9.23)	0.47 (0.14 - 1.61)	1.29 (0.16 - 10.31)
Electronic Device			
Laptop	0.87 (0.10 - 6.85)	0.47 (0.11 - 1.94)	0.93 (0.11 - 7.65)
Handphone	0.53 (0.21 - 1.31)	**0.39 (0.198 - 0.78)**	0.61 (0.25 - 1.49)
Tablet	0.86 (0.28 - 2.58)	1.47 (0.71 - 3.04)	1.61 (0.65 - 3.95)

Notes: The bold font indicates statistical significance at $p<0.05$, UTC Unable to compute, The income classification, B40, M40, and T20, represent percentages of the country's population

of Bottom 40%, Middle 40%, and Top 20% respectively.

4.0 DISCUSSION

Our study results suggest that undergraduates preferred synchronous rather than asynchronous ODL during the COVID-19 pandemic in Malaysia. Google Meet appeared as their most favored platform. Even though the overall perceptions towards ODL was fair to good, majority of the undergraduates desired a combination of online and face-to-face learning, with only a handful of them choosing complete online learning. Notably, the undergraduates rated their satisfaction level towards ODL with an average of only 3/5 although they had an overall fairly good perception towards ODL. Risk factors such as ethnicity (ethnic groups other than Malay, Chinese and Indian) and students from East Malaysia specifically Sabah were more likely to have poor satisfaction towards ODL. In addition, those using handphones were found to be having higher motivation and satisfaction during ODL.

We also found that most undergraduates preferred a combination of “face-to-face” and online learning while only a small percentage of students preferred solely ODL. These findings differ from previous similar studies. According to the study by Schlenz et. al. (2020), about 37% of the undergraduates preferred “face-to-face” learning instead of ODL on its own. Meanwhile we found only a quarter of the Malaysian students preferred “face-to-face” learning solely. This finding supports a previous study where a higher percentage (44.2%) of dental students from Indonesia preferred ODL rather than classroom learning (Amir et. al. 2020).

The preferences of learning methods may be related to the undergraduates’ attitudes, motivations, satisfaction level and the challenges faced during ODL. Google Meet (63.3%) was found to be the most preferred ODL platform while WhatsApp Voice Messages (8.4%) was the least preferred platform among our participants. This result is similar to another local study conducted among undergraduates (Chung et. al. 2020).

However, when comparing synchronous and asynchronous ODL, majority of the undergraduates (69%) preferred asynchronous lectures or pre-recorded lectures uploaded on to Google Classroom and YouTubes (Chung et. al. 2020). This is in contrast to our present study findings, whereby only 36.7% of the undergraduates favored asynchronous learning with most of them (63.3%) preferring synchronous online learning. Probably, synchronous class is preferred by our undergraduates in the present study because there will usually involve live discussions and engagements between educators and learners. This assist to clear any doubts and queries that the undergraduates have. Apart from that, undergraduates may be

more focused and have less tendency to be distracted as compared to asynchronous classes where they would be inclined to procrastinate or skip the pre-recorded classes.

Although Malaysian undergraduates in our present study perceived themselves to have high self-efficacy towards computer or internet, they preferred a combination of online and face-to-face learning methods. Similarly, Asiry (2017) reported that students were positive towards online learning but viewed online learning as a supplement to their learning rather than a replacement for traditional or face-to-face teaching methods. This could be possibly be related to the many other factors such as readiness to participate from a distance or not at campus. For example, physiotherapy undergraduates were found to have moderate to high levels of readiness towards online learning when the distance learning was not taken into account (Ranganathan et al. 2021). Further, undergraduates in our present study showed only fairly good attitudes and motivation towards ODL. The reason for this could be because they felt less confident in directing their own learning progress and were easily distracted during online learning. Moreover, most undergraduates have less satisfaction towards ODL due to a lesser student-student, student-teacher and student-material interactions (Bervell et. al. 2020). These results are also supported by the study by Sim et. al. (2021), where the undergraduates reported to have difficulty in concentrating for learning during ODL. Even though the undergraduates acknowledged the benefits of developing interpersonal and socializing skills, having good Internet access, enhanced family ties, and time flexibility when using ODL, they were found to be not motivated for ODL (Sim et. al. 2021)

In this study, we also discovered several barriers and challenges faced by the undergraduates based on three categories which included technical issues, lecturers' teaching styles, environmental, and interaction factors. The main challenge was the environment factors; they had difficulties to focus and easily distracted by their surroundings beside having to share learning and working space with their siblings and family when studying at home. Similar concerns were highlighted in a recent study conducted by Siti et al (2020); students were reported to be unable to concentrate for T&L at home due to the noisy environment, limited space and Internet data that was shared by many family members. (Allam S. N. S. et. al. 2020)

In addition, lack of interaction due to absence of face-to-face sessions with friend and lecturer affected their motivation which has also been suggested in the previous study (Faize ,& Nawaz 2020),While in terms of teaching styles, students agreed that too many task allocations that should be completed in a short time was rather challenging. This could happen

due the change of teaching style into asynchronous class, where the students are given some tasks to be completed before the next synchronous class which might provide a shorter time than usual. This assumption was however yet to be proven.

Interestingly, we found that internet connectivity was not the main problem faced by most undergraduates. This may be due to most of them having more than one device with different internet accessibility (e,g landline Wi-Fi and mobile data) as a back-up when they encountered any technical issues. The findings of our study are consistent with findings in a study by Chung et al (2020) among undergraduates in Malaysia in which 40% and 47% of them reported good and moderate internet connectivity respectively. However, in another study conducted by Coman et al (2020), about 69.4% of the students complained that they frequently and very frequently encountered technical issues during ODL such as poor connection to the platform, sudden signal loss, delayed viewing of the messages and low sound clarity.

Apart from that, lecturers' teaching styles during ODL is also one of the challenges faced by the undergraduates, the undergraduates agreed that there are too many allocated tasks that were to be completed in a limited time period. This may be due to the limited use of E-T&L methods among the lecturers before COVID-19 pandemic. This was seen by undergraduates as requiring further adjustments for educators teaching styles for T&L delivery through online platforms.

Besides, there was lack of flexibility for T&L schedules, leading to perceived inadequate delivery in an online environment. These findings are supported by a previous study where 8.8% of the students agreed that there is a lack of balance between assigned tasks and duration allocated to its completions (Coman et al 2020). About 5-10% of the students stated that some of their educators did not mention clearly the requirements and expectations, failed to empathize and offer assistance or support for their problems (Coman et al 2020).

It is evident from our study findings that most undergraduates in Malaysia did not prefer an exclusive online learning mode. Undergraduates from courses that require hands-on skills and practical would prefer face-to-face sessions for learning psychomotor skills. Lab based practice could be perceived to provide better experience for practice among peers under the supervision of the educators to correct any mistakes real time. According to Jaggars (2014), most students preferred only easy subjects to be conducted online, and the difficult ones to

be delivered using face-to-face sessions (Jaggars 2014). In addition, recorded and saved ODL sessions could be discouraging some undergraduates to have spontaneous and informal knowledge exchange (Beaudoin 2002). Lack or reduced educator-student interaction and engagement may result in decreased satisfaction and motivation to learn among students (Martin & Bolliger 2018).

We found that undergraduates from Sabah are more likely to have poor motivation and satisfaction towards ODL. This may be due to the overall poor internet connectivity in the state. Furthermore, undergraduates from Kelantan are more likely to have poor environmental conditions during ODL which could be in relation to technical issues. However, our study results indicate that undergraduates with handphones might have higher motivation and satisfaction towards ODL. This could be because accessing information instantly is possible with mobiles besides being more affordable and having more functions and apps compared to laptops and computers. For example, assignments requiring video shooting and group discussions through online platforms (e.g., Telegram and Whatsapp) could be done with ease. Our study had several limitations. Firstly, our sample may not represent all the undergraduates in Malaysia as the survey questionnaires were shared online mostly among third-year undergraduates from IPTA to determine the undergraduates' perspectives and satisfaction towards ODL during the COVID-19 pandemic. Besides, the study used a non-probability sampling method, therefore, the probability that either an IPTA or IPTS student chosen to participate in the research was unknown prior to obtaining the results. While this study was online survey in nature, the root cause pertaining problem in ODL may not be well explored, thus, qualitative study such in depth interview are crucial to be conducted in the future study.

5.0 CONCLUSION

Our findings highlighted that preferred learning type is the synchronous rather than asynchronous ODL with Google Meet as their most favored platform. Overall, their perception of readiness and satisfactions on ODL were fairly good. We have also revealed the main challenges encountered by the students which were the environment factors and teaching styles particularly on task allocation. These findings will be beneficial for educators in the planning for future T&L methods. Future studies with a larger sample size are needed to evaluate the independent risk factors related to low motivations, perceptions and satisfaction among undergraduates using ODL.

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