

ASSESSING THE STUDENT'S LEARNING PERFORMANCE ON OPEN AND DISTANCE LEARNING (ODL) BETWEEN STUDENTS IN PUBLIC AND PRIVATE UNIVERSITIES IN MALAYSIA

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Abstract: The spread of COVID-19 has forced all universities around the world to switch from the traditional classroom and face-to-face learning to open and distance learning (ODL). Even though ODL has become the solution to the teaching and learning during the pandemic, students still have difficulties performing, participating, and contributing to the learning process. This has made ODL less effective as compared to face-to-face learning. Hence, this study was conducted to examine the factors affecting the ODL learning performance among students in one of the public and private universities in Malaysia. This study used a quantitative method approach. The respondents participated in this research were 94 respondents from the public university and 77 respondents from the private university. An online survey was used to gather the data and the gained data were analysed using the SPSS version 28. It was found that time management significantly affects the students' learning performance as compared to other factors. It was also found that students in private university were more satisfactory regarding teaching and learning during ODL and they perceive online group discussion during ODL is very effective. On the other hand, findings indicated that motivation and technology in public university are more effective as compared to private universities. The limitation of this study is the purposive sampling techniques which was done via online approach and the small sample size due to the restricted data collection resources. It is recommended that future research can study on the ethnic and socio-demographic differences and consider the insights from the instructors to match the expectation of public and private universities on ODL implementation.

Keywords: open and distance learning, learning performance, public university, private university

Introduction

When the world was hit by the pandemic COVID-19 two years ago, it has impacted 23.4 million students and 1.4 million lecturers (UNESCO IESALC, 2020) which resulted in the closing down of all educational institutions around the world (Tadeo, 2021). The closure of the educational institution has forced the world of education to go through a phase of drastic change from a traditional way of teaching and learning to ODL to ensure the continuation of learning process. The change in the education system

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demands educators to be more professional, innovative, prepared with a wide range of knowledge and requires the educators to act proactively (Mamat et al., 2021) to face the new era of teaching and learning norms.

Since pandemic COVID-19, the ODL has become the new norm which increasing urgent in the learning process and is no longer an option. Tadeo (2021) mentioned that in ODL, educators are expected to facilitate and actively engaged with learners through internet accessed tools despite the geographically distant between educators and learners. When the Ministry of Higher Education (MOHE) in Malaysia instructed all public and private universities to change its learning process from face-to-face learning to ODL starting from March until December 2020 (Al-Kumaim et al., 2021), this has forced all academicians to shift to online learning. Among the online platforms that were widely used in conducting their class were WhatsApp, Telegram, Google Classroom, Google Meet and YouTube (Chung et. al., 2020).

Similarly, the ODL practice in the private university commenced following the directive from MOHE. Since the university has previously practice blended learning teaching-learning model in its institution, the existing Learning Management System (LMS) such as Blackboard was then fully utilized to support the ODL during the Movement Control Order (MCO) period. Other platforms such as WhatsApps and e-mail were also used to support the teaching and learning processes. ODL is seen as a necessity since it has become the most appropriate method to be implemented due to the spread of Covid-19. Unfortunately, there are still students who lack communication technology such as smartphone ownership, less technological device accessories which do not support learning, students need to help families in their day-to-day house-chores and unconducive environment during the learning session (Razak, 2020). In addition, the problem in online learning is also seen in different angles including the online classroom learning environment, student-teacher relationship in online learning, technical barrier in online learning and health issues in online learning (Rana, 2021). According to Mohd Shafie (2020) the internet access is often the issue and barriers to the effectiveness of online learning which caused the students to be left behind. A newspaper excerpt from Sinar Harian (19 June 2020) reporting on the views of Anuar Ahmad, a lecturer of the Centre for Community Education and Wellbeing, Universiti Kebangsaan Malaysia (UKM) who explained that online learning is only an option, however with the enforcement of the MCO, it has become a necessity. He added that in the current situation, Malaysia is not fully prepared to use online learning methods due to lack of infrastructure and internet coverage especially in the rural areas. The result clearly showed that the issue of imbalance in access to online learning must be given the utmost attention in formulating more efficient and effective learning styles due to the change in the educational landscape.

Although there has been numerous research on the students' performance during the pandemic and students' preferences of ODL tools to the undergraduate university students (Al-Kumaim et al., 2021; Raihana, et. al, 2021); however, a thorough study focusing on students learning performance in public and private universities is not yet available. Hence, this research is conducted to investigate the ODL learning factors that contributed to the students' poor performance in public and private universities in Malaysia. It consists of two objectives: Firstly, to identify the factors affecting the ODL learning performance of students in public and private university and secondly is to examine the most influential factors affecting the ODL learning performance between students in both universities. The investigation is guided by two research questions: a) What are the factors affecting ODL learning performance between students in public and private university? b) What is the highest influential factor affecting ODL towards the students' learning performance? Since ODL has become a necessity as time changes together with the technology advancement although the world will be free from the COVID-

19 pandemic, it is hope that well prepared learning styles in ODL can enhance level of students' satisfaction as well as increase their self-motivation in learning.

ODL and Teaching Delivery

Technology advancements are used to direct, create, and deliver the course materials as well as to encourage two-way communication between the lecturer and students (Thanji & Vasantha, 2016). Thus, online learning systems, which are web-based programmes used for managing, tracking, and disseminating courses online, are necessary for ODL (Keis, 2017). ODL learning offers chances for technology-based creativity in the delivery of instruction as opposed to many typical learning experiences that take place in the classroom (Mathew & Chung, 2020). Universities now conduct teaching and learning activities using gadgets including computers, laptops, tablets, and mobile phones as a result of the COVID-19 disease's spread (Selvanathan et. al, 2020). These tools offer features like whiteboards, chat rooms, polls, quizzes, discussion forums, and surveys that enable lecturers and students to communicate online and share course materials at the same time (Mukhtar et. al, 2020). Additionally, according to Mukhtar et al. (2020), institutions encourage students to use Microsoft Teams, Google Meet, Zoom, Webex, and Skype for video conferencing during class (Barakat et al., 2022). However, students with limited resources and access to online learning may find ODL challenging (Selvanathan et al., 2020). Given the many difficulties brought forth, it is possible that students' academic performance will be impacted during the pandemic at both public and private universities.

Despite the worldwide lockdown or movement restrictions brought on by COVID-19, private educational institutions, especially private universities, can carry out academic activities remotely because of the Learning Management Systems (LMS). Even before the pandemic, many private universities have used the LMS as part of a blended learning therefore these universities did not experience many issues switching to a fully online approach to conduct academic activities (Asuguo & Godwin, 2021). However, switching from a hybrid learning strategy to a wholly online approach remains difficult for certain private universities. For instance, even though the University Budi Luhur (UBL) e-learning system was only intended to be used for the blended learning method, lecturers and students from this university which is located in Indonesia were encouraged to fully utilize the use of it (Solichin & Wijaya, 2021).

In addition, when the government issued the MCO directive to stop the spread of COVID-19, some public universities that regularly use face-to-face lecturing in classes, despite having the facilities and technology provided, had to struggle with Internet connection as well as the hardware and software. Many students have regular internet connection issues as well as hardware and software issues because of the limitations of Internet and technological resources, which disrupt the learning process (Means & Neisler, 2021). Since then, several issues surfaced and contributed to the students' poor performance.

Students' Performance and Technology Effectiveness

Students have expectations for ODL, and if those expectations are met, it will be evident in their success on examinations or other forms of evaluation (Gopal et al., 2021). According to these authors, to ensure that students are satisfied during ODL, lecturers must adjust to the demands and capabilities of technology. Thus, it could reduce the number of interruptions or restrictions throughout the lesson that can lower the student's motivation (Gopal et al., 2021). It is vital for lecturers and students to interact, and the ability to effectively use the technology as well as technology-related abilities help for effective

interaction during ODL (Lohr et al., 2021). Frequent Internet access interruptions can lead to failures in the learning process and in turn affect student performance. With many students not having a good Internet connection especially when it comes to video conferencing sessions that require high bandwidth connectivity, the disruption to learning sessions cannot be avoided (Means & Neisler, 2021).

According to the study by Al-Kumaim et al. (2021), students have a variety of issues throughout the MCO, including information overload, trouble adjusting to the ODL environment, and a lack of proficiency in the various teaching platforms employed. In addition, health problems caused by COVID-19 also affect the students' motivation towards ODL sessions (Al-Kumaim et al., 2021). Another study by Meşe and Sevilen (2021) indicated that students do have difficulties with the teaching method, class delivery, getting feedback and interaction during ODL. The study asserted that students' motivation to attend class was occasionally diminished by inadequate instructions and feedback from the lecturers. In fact, the study's results showed that students' motivation was weaker in online learning than it was in face-to-face classes, and the researchers theorised that this was because of the students' lack of relationships with their peers and lecturers. Although the issue can be resolved by using Google Meet or Webex, where the lecturers or peers can give quick feedback, it is suggested that students who wish to take part in ODL still need to make an investment in technology such as laptops, webcams, and reliable internet connections (Sutiah et al., 2020).

Many synchronous activities or live lectures were held without student webcams and microphones to accommodate their poor internet data or speed (Castelli & Sarvary, 2021). To reduce the use of data during ODL, students need to turn off the video, yet they felt like facing the wall (Aisyah & Choo, 2021). With limited interaction occurs, reflect to less communication and interactions between students and lecturers (Sundarasan et al., 2020). Although the students could communicate via email with their lecturers, the feedback could be delayed compared to face-to-face learning sessions. However, Abdullah and Said (2022) stated that instructors should be trained to provide constructive feedback to motivate students and retain their participation in ODL sessions.

Students were also burdened with family or home responsibilities during the ODL sessions (Means & Neisler, 2021). They were not familiar and uncertain with new norm of lectures, doing assignments and examination preparation, yet at the same time have to take care of family responsibilities at homes (Aisyah & Choo, 2021; Zhao et al., 2021). The practicalities of ODL include managing everyday housework, family obligations, navigating living quarters, the internet, and electronics with siblings and parents (while learning and working from home), all while attending live lectures, completing assignments, and preparing for tests and exams (Aisyah & Choo, 2021). Even though, ODL enables students to study whenever and wherever it is convenient for them, students find it challenging to completely commit to the ODL due to their busy schedules, lengthy learning periods, and numerous assignments (Samat, et al., 2020). Given that students frequently struggle to divide their time, attention, and spaces, Aisyah and Choo (2021) concurred that time management is crucial when dealing with ODL as students have to challenge the time and self-management while juggling additional family obligations.

2. Materials and Methods

Research Philosophies and Approaches Used

According to Gill & Johnson (2020) a research philosophy describes the assumptions the researcher has about the way they view the world. Gill and Johnson further stated that a positivist philosophy often suggests that a highly structured methodology is appropriate and as such, the emphasis is on

quantitative data and statistical analysis. Therefore, quantitative research (questionnaire survey) was employed in this research.

Research Population and Sample Size

Population can be defined as the group of individuals having one characteristic that distinguishes them from other groups (Creswell, 2009) or as the group of interest to the research, the group to which the researcher would like the results of the study to be generalizable. The unit of analysis of this research consisted of degree students from the Faculty of Business and Management in UiTM Pahang Branch and INTI International University & Colleges. This research managed to get 94 respondents from UiTM Pahang and 77 respondents from INTI International University & Colleges.

Sampling Method

The data were collected using purposive sampling, a technique in which the researcher initially samples a small group of people relevant to the research objectives. The sampling frame of respondents was obtained from the Division of Academic Affairs from both universities.

Data Collection Method

This research used a quantitative approach to gather the data. The self-administrated online questionnaires were designed using a Google form. The online questionnaires were the best way to collect data due to physical distancing restrictions imposed during the COVID-19 pandemic. The questionnaires were provided with a cover letter to the respondents, explaining the essence of the research and concealment. The survey items were adapted from the factors affecting academic performance of students by Martha (2009). Some items were modified to get the required responses to the research questions. The questionnaires consisted of Section A and Section B. Section A asked the General Information of Age, Gender, Enrolment status, Program, Family members involved in ODL at home, the home area and the State/Federal Territory and household income of the respondents. Questions in Section B were related to the factors influencing the ODL learning performance such as Teaching and Learning (10 items), Time Management (5 items), Motivation (5 items), Technology (5 items) Family Commitment (5 items) and Financial (5 items). The questionnaires were measured using 7 points Likert-Scale ranging from 1 = strongly disagree and 7 = strongly agree.

Data Analysis Method

The questionnaires covered a range of questions related to the factors that affect students' academic performance. Statistical Package for Social Sciences (SPSS) version 28 was used for analysis. Data were analysed for respondents' demographic information, comparison mean between each factor, and factor analysis.

3. Results and Discussion

Demographic Profiles of Public University

Data were collected at one point of time using an online survey through emails and 94 respondents completed the survey. Of these respondents, 14.9 percent were males and 85.1 percent were females.

Majority of them were from the age of between 21 years old to 24 years old (90.4%). Most of the respondents were full time students (98.9%). With regards to family members involved in ODL at home, 51.5 percent involved one family members, 20.2 percent involved two family members, 6.4 percent involved three family members, 2.1 percent involved four family members, 1.1 percent more than five family members and 19.1% no family members involved in ODL at home. By home area, the respondents from urban were 55.3% and 44.7% were from rural area. In terms of the state location, most of the respondents had stayed in Pahang 40.4%. Finally, the respondents were also asked to rate their household of income per month, about 47.9% of the respondents were grouped under the low income. Table 1 shows respondents' demographic information.

Table 1: Respondents' demographic information

Demographic	Frequency (n=94)	Percentages (%)
Gender		
Male	14	14.9
Female	80	85.1
Age		
21-24	85	90.4
25-29	9	9.6
Enrolment status		
Full Time	93	98.9
Part Time	1	1.1
Family members involved in ODL at home		
1	48	51.5
2	19	20.2
3	6	6.4
4	2	2.1
More than 5	1	1.1
None	18	19.1
Home area		
Rural	52	55.3
Urban	42	44.7
State or Federal Territory		
Kelantan	13	13.8
Kuala Lumpur	2	2.1
Pahang	38	40.4
Pulau Pinang	1	1.1
Putrajaya	2	2.1
Selangor	16	17.0
Terengganu	22	23.4
Household income per month		
Below than RM1,900.00	45	47.9
RM1,900.00 – RM4,800.00	32	34.0
RM4,800.00 – RM10,900.00	16	17.0
RM15,000.00 or more	1	1.1

Demographic Profiles of Private University

Data were collected at one point of time using an online survey through emails and 77 respondents completed the survey. Of these respondents, 24.7 percent were males and 75.3 percent were females. Majority of them were from the age of between 21 years old to 24 years old (46.8%). Most of the respondents were full time students (74%). With regards to family members involved in ODL at home,

39 percent involved one family members, 6.5 percent involved two family members, 5.2 percent involved three family members, 2.6 percent involved four family members, 9.1 percent more than five family members and 37.7% no family members involved in ODL at home. By home area, the respondents from urban were 87% and 13% were from rural area. In terms of the state location, most of the respondents had stayed in Selangor 31.2%. Finally, the respondents were also asked to rate their household of income per month, about 42.9% of the respondents were grouped under the middle income. Table 2 shows respondents' demographic information.

Table 2: Respondents' demographic information

Demographic	Frequency (n=77)	Percentages (%)
Gender		
Male	19	24.7
Female	58	75.3
Age		
18-20	14	18.2
21-24	36	46.8
25-29	20	26.0
More than 29	7	9.1
Enrolment status		
Full Time	57	74.0
Part Time	20	26.0
Family members involved in ODL at home		
1	30	39.0
2	5	6.5
3	4	5.2
4	2	2.6
More than 5	7	9.1
None	29	37.7
Home area		
Rural	10	13.0
Urban	67	87.0
State or Federal Territory		
Johor	12	15.6
Kedah	1	1.3
Kuala Lumpur	15	19.5
Negeri Sembilan	10	13.0
Perak	1	1.3
Pulau Pinang	8	10.4
Putrajaya	1	1.3
Sarawak	1	1.3
Selangor	24	31.2
Other Country	4	5.2
Household income per month		
Below than RM1,900.00	7	9.1
RM1,900.00 – RM4,800.00	33	42.9
RM4,800.00 – RM10,900.00	33	42.9
RM10,900.00 – RM15,000.00	3	3.9
RM15,000.00 or more	1	1.3

Comparison of means for public and private universities according to different factors

Using the statistical software SPSS version 28, the mean and standard deviation of each indicator were examined. Table 3 outlines the comparison of means for all indicators.

Table 3: Comparison of means and standard deviations for the public and private university according to different factors

Factors Affecting Student Learning Performance	Means		Standard Deviation	
	Public	Private	Public	Private
Teaching and Learning	4.9819	4.9961	.99870	.91873
Time Management	5.5681	5.3169	1.04410	1.18515
Motivation	5.4149	5.2571	.94413	1.11159
Technology	5.4149	5.2026	.94732	1.17719
Family Commitment	4.1681	4.7117	.96578	1.04150
Financial	4.117	4.4675	1.06090	1.11667

From the above table, the mean of the teaching and learning in public university is much less than that of private university. In this research, time management is a remarkable factor during ODL in higher education. The above table shows that the mean of the time management in public university is greater than that of private universities. It is also observed that the mean of the motivation in public university is greater than that of private university. Technology is among important factors in ODL. The above table shows that the mean of public university is greater than private university. For family commitment, it has been seen that the mean of private university is much more than that of public university. Lastly, it has also been seen that the mean of public university for financial is much less than private university.

Factor Analysis

Factor analysis is a method for reducing many variables to a small number of presumed underlying hypothetical entities called factors (Fruchter). It tries to simplify complex and diverse relationships that exist among a set of observed variables by uncovering common dimensions of factors that link together the seemingly unrelated variables and consequently provides insight into the underlying structure of the data (Dillon & Glodstein, 1984). To define the group membership, an algorithm may be used to uncover a structure purely based on the co-relational structure of the factors. One such popular algorithm of generating clusters in an explanatory factor analysis of the item-item correlation matrix using a principal axis factor analysis followed by a Varimax Rotation. Factor loadings those greater than 0.5 (ignoring the sign) have been considered as important ones. In this study, this model of factor analysis (principal component Varimax Rotated Factor Analysis Method) has been used to group the variables. Finally, ranking of the factors has been made based on factor scores.

The Kaiser-Meyer-Olkin (KMO) statistic

The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlations is largely relative to the sum of correlations, indicating diffusion in the pattern of the correlations (hence factor analysis is inappropriate). A value close to 1 indicates that the pattern of correlations is relatively compact and so factor analysis is distinct and reliable factors. Kaiser (1974) recommends accepting

values greater than 0.5 as acceptable. Furthermore, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, and values between 0.8 and 0.9 are very good and above 0.9 are excellent.

Bartlett's test

Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work we need some relationships between variables and if the R-matrix were an identity matrix then all correlation coefficient would be zero. Therefore, this research test to be significant. A significant test tells us that the R-matrix is not an identity matrix; therefore, there are some relationships between the variables we hope to include in the analysis

The Kaiser-Meyer-Olkin (KMO) and Bartlett's test for public and private university

Table 4: The Kaiser-Meyer-Olkin (KMO) and Bartlett's test for public and private university

KMO and Bartlett's test		Public university	Private university
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.773	.817
Bartlett's Test of Sphericity	Approx. Chi-Square	252.675	281.669
	df	15	15
	Sig.	<.001	<.001

From the Table 4, the value of KMO is greater than 0.5 and Bartlett's test statistic is highly significant ($p < 0.001$), so we are confident that factor analysis is appropriate for the data set.

Total variance explained in public university

Table 5: Total variance explained in public university

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.292	54.870	54.870	3.292	54.870	54.870
2	1.269	21.144	76.015	1.269	21.144	76.015
3	.480	8.004	84.018			
4	.394	6.563	90.581			
5	.338	5.626	96.208			
6	.228	3.792	100.000			

The eigen values associated with each factor represent the variance explained by the particular linear component and SPSS also displays the eigen values in terms of the percentage of variance explained (so factor 1 explains 54.87% of the total variance). It should be clear that the first few factors explain relatively large amounts of variance (especially factor 1) whereas subsequent factors explain only small amount of variance. SPSS then extracts all factors with eigen values greater than 1, which leaves with two factors. The eigen values associated with these factors are again displayed percentage of variance

in the columns labeled Extraction Sums of Squared Loadings. The values in this part of the table are the same as the values before extraction, except that the values for the discarded factors are ignored.

Total variance explained in private university

Table 6: Total variance explained in private university

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.937	65.614	65.614	3.937	65.614	65.614
2	.873	14.556	80.170			
3	.433	7.211	87.381			
4	.305	5.091	92.472			
5	.290	4.839	97.311			
6	.161	2.689	100.000			

The Eigen values associated with each factor represent the variance explained by the particular linear component and SPSS also displays the eigen values in terms of the percentage of variance explained (so factor 1 explains 65.61% of the total variance). It should be clear that the first few factors explain relatively large amounts of variance (especially factor 1) whereas subsequent factors explain only small amount of variance. SPSS then extracts all factors with eigen values greater than 1, which leaves with only one factor. The eigen values associated with these factors are again displayed percentage of variance in the columns labeled Extraction Sums of Squared Loadings. The values in this part of the table are the same as the values before extraction, except that the values for the discarded factors are ignored.

Based on the results from the study, it was found that there were not many differences between public and private universities as the respondents who were students provided almost similar preferences for both higher institutions in Malaysia. The variables for this study were teaching and learning, time management, motivation, technology, family commitment and financial. The study reveals that the most factors that affecting student learning performance during ODL is time management. The students managed to attend online classes during ODL. This finding is consistent with the past study by Ahmad (2020) and Amir, et al. (2020). There is no doubt that time-management skills affect learning. Students who can manage time understand the relationship between it and their productivity. Batbaatar and Amin (2021) found in their study that online learning has significant influence towards time management of undergraduate students due to pandemic. For instance, students know how to plan and monitor their time. They know how to chunk their tasks, prioritize subtasks, and reassess their use of time when something new comes up. Effective time management helps students to be more focused at university, thus increasing their efficiency and enabling them to accomplish more within less time. Therefore, students with effective time-management skills usually do well.

The study also found that students in private university were more satisfactory regarding teaching and learning during ODL, the students perceive that online group discussion during ODL is very effective. Group discussion enables students to examine topics from the perspectives of others. Group discussion

allows students to share their views and opinions freely. Online group discussion also provides opportunities for students to interact with each other and gain knowledge from each other. Due to the technological advancement, a lively online discussion is the best way to ignite a creative spark and make ideas flow. It moves beyond more passive learning forms of reading, listening, and watching and allows the learner to actively engage with their peers and teacher. Hence, online discussion forum can support a wide range of learning styles.

In addition, findings indicated that motivation and technology more effective in public university as compared to private universities. Differences were found between public and private universities about the students' motivation in terms of their desire to do well in their courses. The finding is consistent with study by Mese and Sevilen (2021) whereby students frequently referred to their satisfaction with the online course content and materials by making it obvious where they stand on a self-determination continuum of motivation. A motivated student might do his or her homework without being asked to, go above and beyond the requirements of assignments and participate in classroom discussions without being urged. Thus, understanding how to motivate student is crucial in education.

Moreover, for technology students have adequate learning devices such as laptop, smartphones, tablet and so on during ODL. In the age of technology and connectivity, electronic equipment has graced their way into the learning process of students. These gadgets have been used to continually improve and expound methods through which students can learn. The use of technology in education is becoming increasingly popular as educational institutions seek to provide the best possible education for their students.

Furthermore, the study also revealed that family and financial more active in private university rather than in public university. This study found that students in private university have a lot of household chores to do during ODL. The students engaged in household chores during remote learning as they want to contribute to their family. Meanwhile, for financial, their family could afford the cost for ODL requirements since they have good household income.

4. Conclusion

In conclusion, a comparison between the degree students from both universities perspectives draws some interesting and important findings. The findings show that many of the students have positive perceptions about factors affecting students learning performance during ODL. Although many of them indicated improved their time management during online learning, yet they still have challenges in balance between their personal time and their learning time. The needs to address issues raised by the students are critical as these affect the learners' emotions in class. Though the meet ups in ODL are not physical, the communication demands attention from both parties. Recognizing the emotions of learners has proven its benefits such as better students' engagement and high motivation, to strive for good scores for the subject (Ferrer, et al. 2020).

In addition, ODL instructs learners how to make efficient use of their free time. They will gain a lifelong skill by learning how to make the most of their free time. When enrolled in an online programme, students have the freedom to learn at their own pace and on their own time. Thus, achieving a better work-life balance is made possible with an online educational platform. Online education helps students develop critical time management skills that facilitate a healthy work-study balance. Therefore, ODL learning can boost student achievement since it emphasises crucial, future-ready abilities using

technology in the classroom. Teachers who have a firm grasp of the benefits of ODL are better able to meet the needs of their students by providing them with a curriculum that is both adaptable and topical. Making use of interactive learning resources is one way to achieve this goal. Teachers can now explain previously inaccessible concepts by using computer-generated simulations and models. In a similar vein, video conferencing and social media sites provide unprecedented levels of interaction and knowledge sharing between students in various nations. The future of education appears to be as temporally and geographically dispersed as the present and past have been in terms of ideas.

As a practical implication, it serves a dual purpose. First, there are opportunistic claims that technological advances in education, such as ODL, are the immediate solution to both the current and post-pandemic situations. Second, we would like to put out a call for more research on the ways in which digital media and technology are being integrated into classrooms around the globe and what effects this may have on ODL. While these problems may have started with the pandemic, it has certainly made them more noticeable and upsetting for teachers, kids, and parents everywhere, from the early years to tertiary education.

Additionally, the sample size is very small because of constraints on resources for data collection, and the study relied on a purposive sampling method of respondents using an online approach, both of which are limitations of any research. The results that could be achieved with this strategy may not be representative of students' overall ODL performance in the country. The difficulty in gauging the extent to which bias may be present stems from the fact that respondents came from both public and private institutions of higher education. This study did not seek to explore potential ethnic and socio-demographic differences, but future studies would benefit from exploring this question. Given that many Bumiputra (Malay) students do not report financial hardship as a barrier to their ODL performance, it would be instructive to examine the extent to which factors differ between Bumiputra and non-Bumiputra. Possible contributors to the disparity include gender and educational background. If future studies want to meet the needs of both students and teachers in terms of ODL implementation, they should solicit teacher feedback. In a Malaysia context with different cultures, races, and demographics, different possible views of ODL could be derived. Future research also should consider getting insights from the instructors to match the expectation of both parties on ODL implementation.

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