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Research Article

Beyond the Classroom: Students' Perspectives on E-Learning Portal in Blended and Online Learning

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Abstract

Evaluating the e-learning portal is essential to ensure the success of online teaching and learning activities. The portal should be assessed regularly to determine its value as a tool to support learning. This study aims to investigate students' perspectives on using the e-learning portal as a blended and online learning activity. A survey involving two cohorts of students from a public university in Malaysia was conducted in 2016 (n = 805) and 2020 (n = 1027). The survey required the students to evaluate the use of the e-learning portal in blended and online learning, regarding their self-learning experiences, learning performances, quality of learning materials, quality of communication, and their level of interest in using the portal. The findings revealed that the majority of the students from both cohorts were generally positive about using the e-learning portal to support their learning. However, it is interesting that both cohorts preferred face-to-face instruction over online learning. Hence, future research should widen the scope of the study by analysing the perspectives of course instructors, administrators, and other relevant learning support agencies.

Keywords: e-learning, online learning, blended learning, online portal

INTRODUCTION

E-learning portals at local Malaysian universities have enabled teaching and learning activities from various locations, allowing students to control their learning (Ke & Kwak, 2013). There are several benefits of using e-learning, such as providing easy access and low-cost education (Budiastuti et al, 2023; Richardson, 2017). Larbi-Siaw and Owusu Agyeman (2016) stated that e-learning is crucial in tertiary education because it offers alternative methods for developing student knowledge, competency, and attitude. Callaghan (2018) explains that this is a continuation of traditional teaching and learning. While e-learning generally refers to teaching and learning activities in an online

environment, its definition can vary due to the rapid advancement of technology (Corbeil & Corbeil, 2015).

In 2020, the educational landscapes in Malaysia and around the world have changed due to the COVID-19 pandemic. There was a drastic transition from face-to-face to online learning. The Movement Control Order (MCO) in Malaysia has significantly impacted various sectors, including education. A surge in COVID-19 cases made it impractical for educational activities to be conducted as usual. Hence, all Malaysian educational institutions were ordered to switch to online mode. E-learning portals, which used to be a supplementary tool in face-to-face learning, have since become the primary platform for content delivery (Hasbullah et al., 2022).

It is undeniable that face-to-face learning provides space for students to communicate with their lecturers directly. Students may experience technical disruptions in online learning, such as unstable Internet connection and disruptive background noise. According to Markus (2020), financial factors are also a challenge. Powers et al. (2016) state that many students learn better through face-to-face learning than online learning. It has also been discovered that students prefer physical learning the most regarding collaborative and interactive activities because of the engagement factor (Carver & Kosloski, 2015). Moreover, Giray (2021) states that face-to-face learning is more valuable to students than online learning.

This study evaluated the e-learning portal to ensure that online teaching and learning activities are implemented effectively through blended and online learning environments. Morpheus and eLEAP, an e-learning portal, was developed to facilitate online teaching and learning at a higher education institution in Sarawak. This platform supports both blended and full online learning. In 2016, a research project began to evaluate the impact of this e-learning portal in a blended learning environment. The study was repeated in 2020, coinciding with the Movement Control Order (MCO) enforcement, which required a shift from blended to fully online learning in higher education institutions.

LITERATURE REVIEW

One of the most important attitudes students should possess in online learning is the ability to manage learning independently. Gorbunovs et al. (2016) explain that self-management equals self-discipline. Motivational factors are also essential. Self-management is related to students' competency in improving online learning performance (Cobb, 2013). Self-discipline, however, acts as a stepping stone to learning improvement. It can be seen when students plan their learning process systematically and do their learning tasks efficiently (Jung et al., 2017). Due to convenience, online learning requires students to have high self-discipline (Chauhan, 2020). Students need to have good time management skills and discipline to avoid procrastination.

Accessibility to learning materials from various Internet sources has helped students learn better and obtain good grades in their assessments. As stated by Sabani and Razak (2022), the Internet has become an essential resource for learners, serving as a necessary tool to access educational materials. Paliwoda-

Pekoszand and Stal (2015) discover that online learning enables students to achieve outstanding academic results. However, this is more likely to happen if the students are inquisitive about their learning. Previous studies have mentioned that students with high self-learning skills are more successful than students with low self-learning skills in an online learning environment (Carver & Kosloski, 2015; Milligan & Buckenmeyer, 2008; Seiver & Troja, 2014).
To have an impactful online learning experience, preparing sufficient learning materials in the E-learning portal is vital. Lee et al. (2009) believe that learning materials for E-learning should be well-designed to increase their usability. These learning materials include documents, audio, and videos (Roslin et al., 2022). Another factor that determines the online learning experience is the course content (Peltier et al., 2007).

An interactive e-learning portal leads to a more meaningful and engaging teaching and learning process. Thus, it is necessary to insert communication features such as messages and chat boxes. Students and lecturers can interact with each other through forums as well. Active communication in the E-learning portal creates a positive learning experience in an online environment (Bernard et al., 2009). Moore (1993) states that online communication exists in various ways: Communication with lecturers, communication among students, and communication through course materials. A study by Bergeler and Read (2021) reveals that students are more satisfied when communicating with their instructors and friends in physical and virtual environments. Moreover, face-to-face communication with the lecturers provides students with more learning opportunities (Olt, 2018).

Interest also plays an essential part in e-learning. Failure to cultivate interest among students will affect their motivation to participate in e-learning activities and, therefore, could affect the use of e-learning portals. According to Hasan et al. (2016), students are more likely to participate in learning activities in e-learning portals if they have a high level of interest. Furthermore, it will also help increase their motivation to learn and, therefore, improve their academic performance (Ahmed & Osman, 2020). Castro and Tumibay (2021) argue that motivation is undeniably important to enable students to participate in online learning activities.

METHODOLOGY

The study was conducted in 2016 and 2020 at Universiti Malaysia Sarawak. The survey was distributed to the entire study population in both years. The research instrument was adapted from the e-learning evaluation model, the Hexagonal E-learning Assessment Model (HELAM), developed by Ozkan and Koselar (2009). Based on this model, the evaluation was categorised into six dimensions: students, faculty, system quality, course content quality, service quality, and support factors. This study only focused on the student dimension. Ten questions were adapted to evaluate the e-learning portal and are shown in Table 1.

The following research instrument is the e-learning portal developed by the UNIMAS Centre of Applied Multimedia (CALM). This E-Learning Portal has been updated to ensure its versions align with the development of Internet technology. E-learning activities in UNIMAS began in 2002 with the

introduction of Lotus Quickplace as the first portal. Then, the Morpheus e-learning portal was used from 2006 to 2017. Currently, the e-learning portal has been rebranded as eLEAP. Generally, this portal manages documents and assessments, tracks and reports, and delivers course content.

Table 1: Evaluation of e-learning portals from students' perspectives

No.	Item
1	Face-to-face learning is better than distance learning in terms of the learning process.
2	I can manage my study time effectively through the use of Morpheus/eLEAP
3	I can complete tasks easily through the use of Morpheus/eLEAP.
4	Morpheus/eLEAP increased my academic performance in courses.
5	I found all my learning needs from Morpheus/eLEAP.
6	Morpheus/eLEAP facilitates my communication with lecturers and classmates.
7	Morpheus/eLEAP helped me to become more familiar with a course.
8	Morpheus/eLEAP helped me to be a disciplined student.
9	I think Morpheus/eLEAP is an efficient learning tool.
10	Overall, I enjoyed my participation in the Morpheus/eLEAP session.

FINDINGS AND DISCUSSION

Descriptive data were gathered and analysed in this study. Validity tests were performed, and the Cronbach's Alpha values are 0.833 (2016) and 0.755 (2020). Based on the students' demographic, it was found that 805 students answered the questionnaire in 2016, while 1027 students did the same in 2020. In terms of gender, there were more female students (70.3% in 2016; 72.2% in 2020) than male students (28.8% in 2016; 27.8% in 2020) in both years.

Table 2 shows that 49.1% of students in 2016 used computers between 4-8 hours a day, compared to 39.8% in 2020. However, in 2020, 49.4% of students spent more than 8 hours a day using computers. This was higher than in 2016 when only 31.1% reported spending more than 8 hours a day using their computers. The use of computers over a relatively long time was possibly due to educational, entertainment, and social purposes, especially when the teaching and learning sessions were conducted online and required students to use the e-learning portal.

Table 2: Number of hours spent on a computer

No.	Hour	2016	2020
1.	< 1 hour	0 (0%)	7 (0.7%)
2.	1-3 hours	139 (17.3%)	104 (10.1%)
3.	4-8 hours	395 (49.1%)	409 (39.8%)
4.	> 8 hours	250 (31.1%)	507 (49.4%)

Note: N=805 (2016); 1027 (2020)

Table 3 shows that in 2016, the majority (47.8%) of students who used computers for learning purposes were using computers between 1-3 hours a day compared to 19.6% in 2020. In 2020, 53.1% of students were found to use computers between 4-8 hours a day compared to 39.8% in 2016. Meanwhile, the finding also shows that in 2020, 26.1% of students used computers for learning purposes for more than

8 hours a day, compared to only 7.6% in 2016. This situation is likely due to the current educational policy that requires all learning activities to be implemented online.

Table 3: Number of hours spent on computer for learning purposes

No.	Hour	2016	2020
1.	< 1 hour	4 (0.5%)	13 (1.3%)
2.	1-3 hours	385 (47.8%)	201 (19.6%)
3.	4-8 hours	320 (39.8%)	545 (53.1%
4.	> 8 hours	61 (7.6%)	268 (26.1%)

Note: N=805 (2016); 1027 (2020)

Table 4 shows that a total of 71.6% of students used the e-learning portal between 1-3 hours a day in 2016 compared to 54.8% of students in 2020. In 2020, a total of 22.9% of students used the e-learning portal between 4-8 hours a day compared to 4.8% of students in 2016. 3.8% of students used the e-learning portal for more than 8 hours daily in 2020 compared to 0.5% in 2016. This situation gives the impression that virtual learning activities influenced the use of computers among students.

Table 4: Number of hours spent on the e-learning portal

No.	Hour	2016	2020
1.	< 1 hour	154 (19.1%)	190 (18.5%)
2.	1-3 hours	576 (71.6%)	563 (54.8%)
3.	4-8 hours	39 (4.8%)	235 (22.9%)
4.	> 8 hours	4 (0.5%)	39 (3.8%)

Note: N=805 (2016); 1027 (2020)

The Effectiveness of E-Learning Portal

The subsequent discussion is based on the following outline:

a. Assessing face-to-face and online learning sessions
b. Using e-learning portals to improve students' learning performance
c. Learning needs availability in the e-learning portal
d. Self-learning management in online learning
e. Communication facilities in the e-learning portal
f. Students' interest in using the e-learning portal

From the analysis, the majority of the students in 2016 (93.3%) and 2020 (86.5%) agreed that face-to-face sessions were better than online (blended and online learning) in terms of the learning process. Although the students' learning method in 2016 was face-to-face and used e-learning to support learning activities, students still think face-to-face learning is better. Looking at students' views in 2020, it was found that although learning is done entirely online through the e-learning portal, they also believe that face-to-face education is better than online.

Table 5: Assessing face-to-face and online learning sessions

No.	Item	2016		2020	
		D	A	D	A
1.	Face-to-face learning is better than distance learning in terms of the learning process.	54 (6.7%)	751 (93.3%)	139 (13.5%)	888 (86.5%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

The data in Table 6 shows a slight increase in students' performance in 2020 compared to 2016. In 2020, 79.6% of students thought they performed well in the course compared to only 70.6% of students in 2016. Most students agreed that the e-learning portal helped them adapt to the course they were taking. This can be shown in the total percentages of 84.2% of students in 2016 and 87.2% of students in 2020. Overall, most students agreed that the e-learning portal played a part in their achievement in a course they took. This is in line with the finding by Paliwoda-Pekoszand and Stal (2015) that online learning contributes to better results compared to traditional (Face-to-Face) learning. Similarly, according to Fanfarelli and McDaniel (2019), students who participate in an online learning environment tend to achieve higher levels of success than those who get instruction in a traditional classroom setting.

Table 6: Using an e-learning portal to improve students' performance

No.	Item	2016		2020	
		D	A	D	A
1.	Morpheus/eLEAP increased my academic performance in courses.	236 (29.4%)	569 (70.6%)	209 (20.4%)	818 (79.6%)
2.	Morpheus/eLEAP helped me to become more familiar with a course.	127 (15.8%)	678 (84.2%)	132 (12.9%)	895 (87.2%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

Table 7 shows that most students (66.8% in 2016 and 74.3% in 2020) agreed that e-learning portals can provide them with learning materials. The increase in 2020 illustrates that lecturers' preparation of learning materials was good and helped the students access learning materials easily. Learning materials in online learning are important to increase the usability of the e-learning portal (Lee et al., 2009). In his study, Mohamad (2022) revealed that teaching materials are accessed more frequently than forums, wikis, and quizzes. This scenario highlights the necessity for educational resources within the e-learning platform.

Table 7: Learning needs availability in e-learning portal

No.	Item	2016		2020	
		D	A	D	A
1.	I find all my learning needs from Morpheus/eLEAP.	267 (33.1%)	538 (66.8%)	264 (25.7%)	763 (74.3%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

On average, students were able to demonstrate self-learning abilities in 2016 and 2020. However, there is a slight increase in the percentage, as shown in 2020. This data can be seen in Table 8.

Table 8: Self-learning management in online learning

No.	Item	2016		2020	
		D	A	D	A
1.	I can manage my study time effectively through the use of Morpheus/eLEAP	237 (29.4%)	568 (70.6%)	217 (21.1%)	810 (78.9%)
2.	I can complete tasks easily through the use of Morpheus/eLEAP.	185 (23.0%)	620 (77.0%)	125 (12.2%)	902 (87.9%)
3.	Morpheus/eLEAP helped me to be a disciplined student.	263 (32.6%)	542 (67.3%)	168 (16.3%)	859 (83.7%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

Table 8 presents the data on the situation where students had increased their self-discipline and ability to manage their learning in 2020 compared to 2016. This could be because all teaching and learning activities were conducted online in 2020. Cobb (2003) states that self-management is a competency that students should have to enable them to improve their online learning performance.

Apart from that, communication factors are essential in online learning. Communication occurs not only between students and lecturers but also involves learning materials and content. The descriptive data in Table 9 shows that 68.7% of students in 2016 agreed that the e-learning portal facilitated communication between them and their lecturers and peers. However, this view is quite different for students in 2020. Only 59.7% agreed that the e-learning portal facilitated communication with their lecturers and peers. Although there was a decrease in the percentage, it is assumed that the communication also occurred outside of the e-learning portal through short messaging applications and social media such as WhatsApp, Telegram, and WeChat.

Table 9: E-learning portal and communication facilities

No.	Item	2016		2020	
		D	A	D	A
1.	Morpheus/eLEAP facilitates my communication with lecturers and classmates.	252 (31.3%)	553 (68.7%)	414 (40.3%)	613 (59.7%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

Overall, the majority of the students agreed that the e-learning portal was able to cultivate their interest, and they believed that it was an efficient tool for online learning. According to Hasan et al. (2016), the state of fun and interest shown by students can increase their intention to use e-learning. Based on the findings presented in Table 10, there was an increase in the percentage of students interested in using the e-learning portal from 76.6% in 2016 to 89.3% in 2020. This is a clear indicator that the e-learning portal has the potential to be an effective teaching and learning tool, which eventually benefits both students and lecturers.

Table 10: Students' interest in using the e-learning portal

No.	Item	2016		2020	
		D	A	D	A
1.	I think Morpheus/eLEAP is an efficient learning tool.	158 (19.6%)	647 (80.4%)	91 (8.9%)	936 (91.1%)
2.	Overall, I enjoyed my participation in the Morpheus/eLEAP session.	189 (23.5%)	616 (76.6%)	110 (10.7%)	917 (89.3%)

Note: D=Disagree; A=Agree
N=805 (2016); 1027 (2020)

CONCLUSION

The COVID-19 pandemic has indirectly paved the way for a new chapter in the education system in Malaysia, where e-learning portals have replaced physical lectures. Previously, the e-learning portal was merely a supplementary tool to any classroom activities and was somehow used in blended learning. Blended learning is not new in today's education. It is a combination of traditional and online education where students have to attend face-to-face learning sessions in the classroom and, at the same time, browse the e-learning portal for learning resources. Based on the descriptive data, students showed positive perceptions towards the use of the e-learning portal in 2016 and 2020. The majority of students gave positive feedback regarding self-management when e-learning was fully implemented in the university. The shift to online learning required students to have self-discipline in learning activities such as lecture preparation, assignments, presentations, and assessments. In addition, students were also positive that the e-learning portal can improve their learning performance. The students also agreed that it was more convenient to access all learning resources in the e-learning portal. They showed interest in using the e-learning portal in their learning.

The students gave satisfactory feedback on the use of the e-learning portal. The findings showed that the students often used the e-learning portal to communicate with their lecturers and classmates, even in face-to-face learning sessions. When e-learning was fully utilised in 2020, the percentage of students agreeing to use the portal for communication decreased. This happened because the students may use various communication tools such as Telegram, WhatsApp, and WeChat to interact with their lecturers and classmates. Another significant finding is that the majority of the students used computers for more than eight hours a day during the pandemic. The percentages of using computers for learning purposes and e-learning portals were also high. Overall, the e-learning portal in UNIMAS is a useful learning platform for students in 2016 and 2020. However, the majority of the students agreed that face-to-face learning sessions are better than virtual learning. This shows that face-to-face learning is still the first option in education. This is in line with a study by Giray (2021), who discovered that physical learning is perceived to be better than online learning.

In conclusion, this study has proven that the HELAM e-learning assessment model is a useful basis for developing the research questionnaire. This study's findings also align with a study by Ozkan and

Koseler (2009) on students' satisfaction with using e-learning portals. Apart from that, the e-learning portal can be evaluated by looking at other dimensions such as teaching staff, system quality, course content quality, service quality, and support factors. This study has proven that the HELAM assessment model is suitable for blended and online learning. With that, further research is needed to investigate the use of the e-learning portal by course instructors, administrators, and all e-learning support agencies that are involved in the development of the platform. Hence, it will enrich the current data and subsequently improve the portal's use to align with current technological and educational needs.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

DECLARATION OF GENERATIVE AI

During the preparation of this work, the authors used ChatGPT to enhance the clarity of the writing. After using ChatGPT, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

DATA AVAILABILITY STATEMENT

Data available within the article or its supplementary materials.

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