

A Study on the Effectiveness of the Online Platform in Tertiary Education in a Malaysian University

Yim San NG^{1*}, Hai Lin Chan¹

¹ Universiti Sains Malaysia, Malaysia

* Corresponding author's email: ysng@usm.my

 <https://orcid.org/0000-0002-4178-5372>

 <https://doi.org/10.54855/acoj.221355>

Abstract

In many facets of our lives, the internet has become indispensable. The internet's role in transforming education has significantly altered both teaching and learning. The ability to learn online has been made feasible by the internet. Nguyen (2015) asserted that this had piqued the curiosity of many researchers and educators who want to use it to strengthen and advance student learning. This small-scale quantitative study examined how well employing online learning works in tertiary education at a Malaysian university. A total of 20 undergraduates from various faculties took part in an online survey. The survey covered both the benefits and drawbacks of online learning. 75% of the undergraduates agreed that using online resources allowed them to take control of their own learning. The results also reveal that, despite having the opportunity to learn conveniently and flexibly through the online platform, undergraduates still consider face-to-face classes a better approach to pursuing their degrees. Using the research findings as a guide, the researchers recommend that instructors using online learning take into account the relevance of the content and solutions, student support, and interaction between students and teachers for effective learning.

Keywords: online learning, learning process, tertiary education

Introduction

Face-to-face lectures, hands-on training, live classrooms, and physical meetings continue to be widely employed and dominate the field of higher education even in the technological age. In the meantime, universities continue to develop cutting-edge teaching methods through the development of information technology in an effort to give students greater opportunities for online learning. In order to increase the quality of learning, universities implement a variety of instructional technologies (Concannon, Flynn & Campbell, 2005). According to Wang, Wang, Lin, and Tang (2003), the use of the internet in the teaching and learning process, which is consistent with the growth of multimedia and information technologies, has led to profound changes in educators' traditional teaching methods. With all the wired equipment invested and new teaching methods that involve educators using online platforms for students, they want to help students do better in their academic pursuits.

Several studies have been conducted to examine whether online platforms and e-learning will enhance students' performance. Bernard et al. (2004) revealed that earlier studies of implementing online platforms in education reported impact sizes near zero, which means that,

in general, learning with these technologies has not been significantly different from regular classroom learning.

In contrast to Bernard (2004), Khan (2005) opined that e-learning could improve academic performance. This is because the online environment is open to both educators and students and therefore has a good chance of providing equal access to the information world, regardless of the user's location. In other words, using online platforms in teaching helps build relationships between students and instructors despite not applying traditional ways of interacting with each other. Hence, if e-learning is implemented and applied in the right way to support cognition, the benefits of e-learning can outweigh those of traditional learning (Faleh, 2011).

Statement of the Problem

The use of the online learning environment to support or complement in-person instruction has long been a common practice in higher education institutions. Assessment of their impact on students' learning is vital because courses are not completely taught online because students must complete a certain amount of physical contact for credit hours in classrooms. Online learning appears to have several advantages over conventional classroom settings, such as making it simple to find materials and increasing interaction and networking between students and instructors. The results of this study will be helpful in figuring out whether there is a meaningful association between online classes and the efficient use of online tools during the learning process.

Objectives of the study

To ascertain the advantages of using online learning in tertiary education. To identify the issues surrounding the use of online tools in tertiary education. To assess the effectiveness of students using online tools compared with the traditional learning process.

Significance of the Study

The results of this study could serve as a benchmark for students and educators who desire to advance in tertiary education by integrating online and in-person learning possibilities (blended learning), as it is projected that the online trend will continue to expand rapidly. The researchers want to better comprehend the constraints of the online learning environments from the viewpoint of the participating students so as to enhance the learning experience for them and achieve optimal outcomes.

Literature review

Some advantages of using online learning in tertiary education.

As the globe experiences enormous improvements in the World Wide Web, the education sector must keep pace with the velocity of the educational revolution. The way forward is to use the online platform for teaching and learning. The online platform enables both students and teachers to search for information easily in multiple locations with the click of a mouse or simply pressing the computer keys or the mobile phone. Arkorful and Abaidoo (2015) said that

the implementation of e-learning in universities is a revolutionary strategy to encourage students to communicate with lecturers whenever and wherever they choose. This convenience encourages the students to be motivated. In addition, Axmedova and Kenjayeva (2021) noted that one of the advantages of online learning is that teachers can become more effective instructors by expanding the lesson plan beyond conventional textbooks to include online resources. Nguyen (2022) added that another advantage was that students appeared to participate and engage more in the online classroom as a result of features such as self-checked attendance, posting any comments in the chatbox, or sharing ideas through forums. Incidentally, Nguyen, Duong and Pham (2022) presented their findings on the effectiveness of employing online writing corrective feedback (WCF) to assist students in improving their writing abilities. This is an advantage that teachers should consider in the online or e-learning platform.

Issues of using online tools in tertiary education

Although students were motivated to enroll in online courses, they nonetheless encountered a number of difficulties when learning remotely. These include poor self-organization, lack of instructor control, ineffective interaction, and a feeling of isolation, all of which obviously lower their satisfaction with the online learning experience (Markova, Glazkova & Zaborova, 2017). Accessibility difficulties also emerged. Students acknowledged that they had some reservations about using Google Classroom (Heggart & Yoo, 2018). Besides, the likelihood of procrastination, failing to grasp material while not in direct contact with the instructor, and requiring more self-discipline for reading and learning were identified as the key drawbacks of taking courses online (Alexander, Truell & Zhao, 2012).

The effectiveness of online tools in tertiary education

Steenkamp and Rudman (2013) concluded in their study titled "Incorporating Online Tools in Tertiary Education" that for online applications to be effective, course designs and activities would likely need to be completely redesigned so as to avoid being perceived as merely optional extras with no real instructional value. On the other hand, Bahasoan et al. (2020) found that the COVID-19 pandemic's online learning method was efficient but ineffective, i.e., effectively implemented due to the prerequisites that demand online education, but inefficient due to the expenses paid when compared to traditional lectures. The primary expense is the internet quota needed to keep up with online lectures. In another research, Roddy et al. (2017) reported that in all forms of online learning, the instructor's presence is still essential. This is especially true in challenging online settings where teachers must work hard to build and sustain student engagement. Based on the research findings above, they specified that there is no one-size fits all online platform for the effectiveness of teaching and learning. In a recent survey on the effectiveness of online teaching-learning methods for university and college students, Darius, Gundabattini and Solomon (2021) identified the following strategies known to encourage effective online learning: animations, digital peer collaborations, video lectures from subject-matter experts, online quizzes with multiple-choice questions, accessibility to student versions of software, a comfortable environment at home, faculty interactions during lectures, and online materials provided by the faculty.

Research Questions

1. What are the advantages of using online learning in tertiary education?
2. What are the issues of using online tools in tertiary education?
3. To what extent does the application of online tools help students learn better than the traditional learning process?

Methods

Pedagogical Setting & Participants

The study was carried out at a public university in Malaysia, which has deployed Moodle (Current Version: 3.5.1+) as the Learning Management System alongside other online applications, e.g., Youtube, Google Meet, Kahoot, and Freerice.com, blended into face-to-face classes. Twenty students from a few faculties were randomly chosen as samples for this study. The students who responded to the survey have used e-learning as well as other online platforms to pursue their studies at the university. The e-learning application has been used interchangeably within the classroom as well as outside the classroom. Lessons carried out in the classroom were all uploaded to the e-learning platform so that students could access them again for revision.

Design of the Study

The quantitative research method has been employed in this descriptive research. The commonly used questionnaire was adopted in this survey. It was designed to gather information needed for the topic discussed and to capture the major dimensions of the online learning experiences of the participating university students. The questionnaire consists of 14 questions, which are divided into three parts. The first part is designed to get information about the respondents' backgrounds to determine if they use online platforms in their studies. The second part of the questionnaire concerns the positive and negative experiences of the participants in the online learning environments, while the third part focuses on and covers several aspects to identify the effectiveness of online tools in the learning process. The questionnaire contains "yes/no" and multi-select multiple-choice questions. All three parts are important as the answers and information contribute to further understanding and interpretation of the topic discussed. This is a small-scale preliminary study to assess the feasibility of a future, full-scale project.

Data collection & analysis

The focal point of the study was to determine how well the online platform works for tertiary education. The researchers performed the process of collecting and measuring information themselves to collect the primary data. The questionnaires were designed and distributed using Google Forms. The data are presented below in the form of pie charts and bar graphs.

Background information

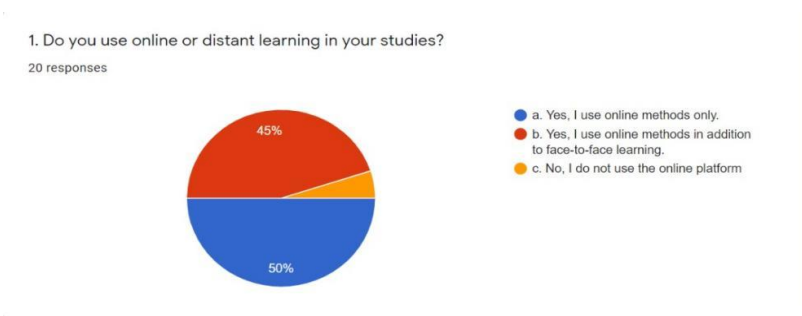


Figure 1. Percentage of online users to study

Of the 20 respondents, only one (5%) did not use any of the online education platforms, as shown in the pie chart above. Ten respondents (50%) exclusively used the internet. The remaining nine respondents (45%) used the online mode to supplement face-to-face instruction.

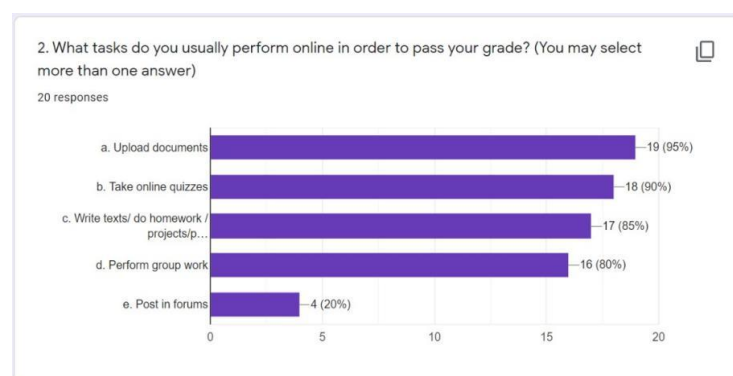


Figure 2. Online tasks that were performed most

This question permitted respondents to select multiple responses. From the bar chart above, respondents' dominant online task to earn passing grades was uploading documents (95%). The least impactful task was posting on a forum, with a 20% response rate. The other online tasks performed were group work tasks (80%), writing texts, homework, projects, and presentation tasks (85%), and online quizzes (90%).

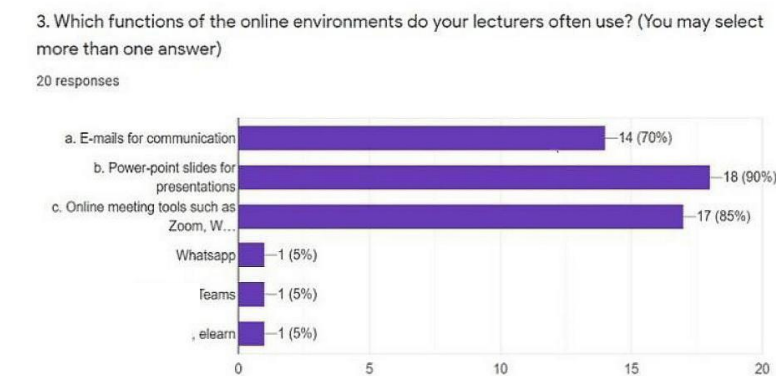


Figure 3. The online environment most used by lecturers

This question allows respondents to choose multiple answers similar to the previous question. With 18 responses and a score of 90%, PowerPoint slides for presentations were the predominant online software application used by lecturers. Again, a substantial proportion of respondents (85%) disclosed that online meeting technologies like Zoom, Webex, and others were frequently employed by their lecturers as the medium of lecture delivery. 14 respondents (70%) stated that email communication was the most popular online environment often used by their lecturer. Other online tools used by a minority of lecturers were Whatsapp, Microsoft Teams, and E-learning.

Advantages of online learning

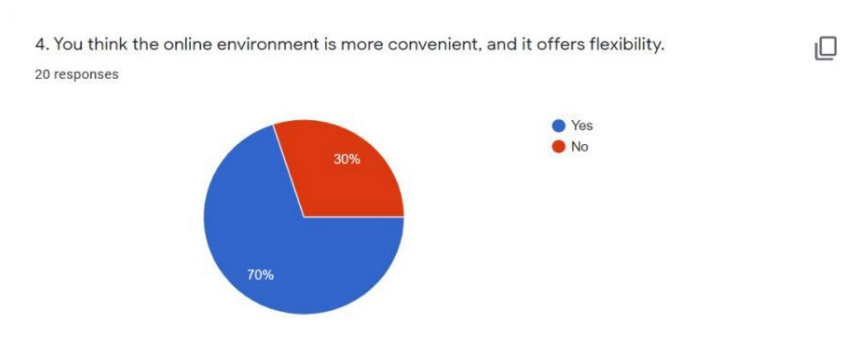


Figure 4. Opinion on the convenience and flexibility of the online environment

From the pie chart above, 14 out of 20 respondents (70%) said that the online environment was more convenient and offered flexibility. 7 respondents (30%) did not think that the online environment was more convenient nor offered flexibility.



Figure 5. The online environment makes respondents more disciplined.

Of the 20 respondents, 7 respondents (35%) agreed that the online environment allowed them to be more self-disciplined, while 13 respondents (65%) disagreed that the online environment allowed them to be more disciplined.

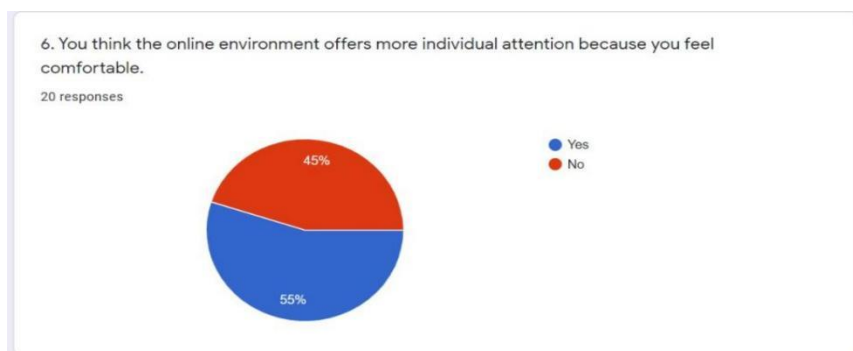


Figure 6. Online environment offers individual attention

Figure 6 shows that 11 respondents (55%) believed that the online environment brought more individual attention to feeling comfortable, while 9 respondents (45%) did not believe that the online environment offered more individual attention.

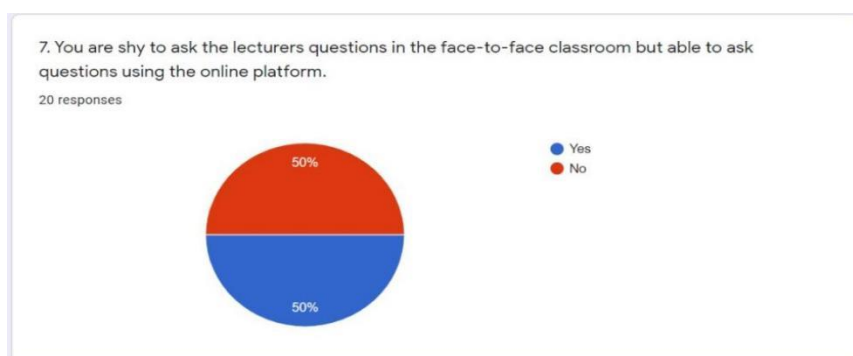


Figure 7. Shy to ask questions in a face-to-face classroom but can do so online.

As can be seen in Figure 7 above, 10 respondents (50%) agreed that they might be shy to ask questions in the face-to-face classroom, but they were capable of asking questions on the online platform, whereas 10 other respondents (50%) disagreed with the statement.

Issues of online tools

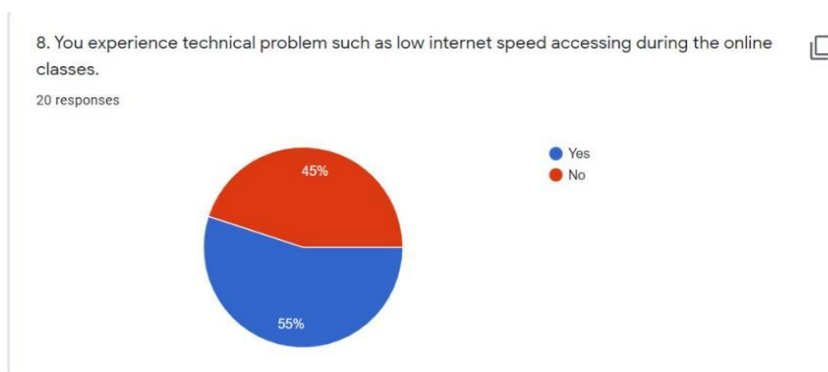


Figure 8. Experience technical issues such as slow internet speed

As shown in Figure 8, 11 respondents (55%) expressed having technical issues, such as slow internet access, while 9 respondents (45%), reported not having any technical issues.

9. You do not feel motivated in the online environment because of the lack of lecturers' physical presence.

20 responses

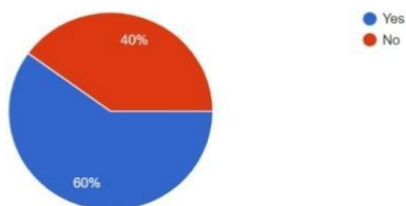


Figure 9. Not motivated by the lack of lecturers' physical presence

Noticeably, 60% (12 respondents) agreed that they did not feel motivated in the online environment because of the lack of lecturers' physical presence. At the same time, 40% (8 respondents) did not agree with the statement.

10. You are not able to dedicate enough time in online learning due to the busy schedules of online classes.

20 responses

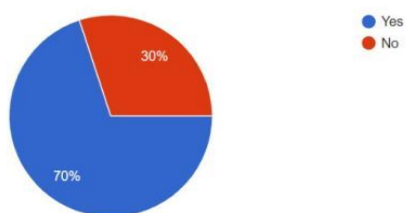


Figure 10. Not having enough time for online learning

The pie chart in figure 10 reveals that 14 out of 20 respondents (70%) agreed that they were not able to dedicate enough time to online learning due to their busy schedules of online classes, while only 6 respondents (30%) disagreed.

Online tools on students' learning process

11. You prefer having classes using traditional methods instead of the online environments.

20 responses

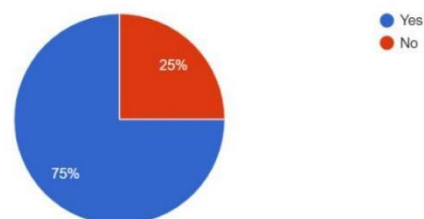


Figure 11. Students' preference on delivery method

On the question of preference in delivery method, 75% (15 respondents) preferred having classes using traditional methods, while 25% (5 respondents) opted for the online platform.

12. Students can access resources and assignments whenever they have internet connection to ease learning.

20 responses



Figure 12. Accessibility of online resources and assignments with an internet connection.

All of the respondents (100%) unanimously agreed that they could access online resources and assignments whenever they have an internet connection to ease learning.

13. Online classes give students full control over their own learning at their own pace.

20 responses

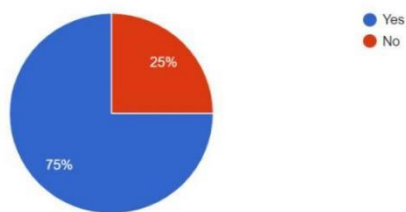


Figure 13. Online classes enable students to have control over their own learning

15 respondents, representing 75% of the total, agreed that students have complete control over their own learning and can progress at their own pace in online classes. 5 respondents, or 25% of the total, disagreed that students have full control over their own learning pace in online courses.

14. You learn faster and better using the online platform compared to the traditional classroom.

20 responses

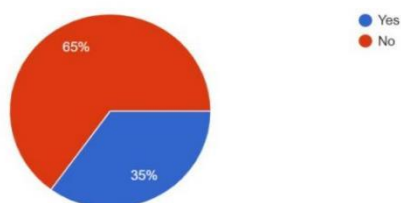


Figure 14. Learning faster and better online compared to traditional classroom

7 respondents (35% of the sample) concurred that the online platform facilitated their learning more quickly and better than in a traditional classroom. Online learning was not found to be quicker nor better than traditional classroom settings by 14 respondents, or 65% of the total.

Results/Findings and discussion

The research questions guide the organization of the findings. One of the goals of the study was to find out how useful online tools are for improving students' learning at the university.

Background information of the respondents

In an attempt to conduct a background check of the respondents on their online habits, only 1 out of 20 respondents said they did not utilize online environments in their studies. Half of the sampled respondents used only the online platform, while the rest of the respondents chose the online environment in addition to face-to-face learning. This finding is in line with the previous finding of Hartshorne and Ajjan (2009), who asserted that one of the vital ways to access available resources for both educators and students is the internet, for both parties to deliver and acquire all sorts of information. As the internet is ubiquitous, this data demonstrates the power of the internet in terms of pedagogical benefits for tertiary students.

With the utilization of online environments, the variety of tasks given by educators and lecturers also becomes dynamic and diverse. The majority of respondents agreed that they perform various tasks online, such as uploading documents, answering online quizzes, writing for presentations or projects, and participating in group work to secure passing grades. Using online learning tools has also transformed the way students hand in their homework to lecturers. This study supports Oblinger and Hawkins (2005), who pointed out that online learning has transformed from fully online courses to using technology to deliver some parts or all of a subject of a course independent of permanent time and place.

Additionally, the respondents further responded that their lecturers largely used PowerPoint slides (90%) for presentations, emails (70%) as the main medium to communicate with students, besides online meeting tools (85%), such as Zoom and WebEx virtual meetings, to conduct lectures for synchronous communications. These three were the major mediums that the lecturers usually used to deliver messages and instructions to students. However, a small number of lecturers used chatting applications, for example, Whatsapp, Microsoft Team, or Learn to engage with students. Despite the fact that the messaging apps and the Elearn system were not utilized as frequently as Zoom or emails, it is evident that the use of online tools in education alters the patterns of how educators connect with students in the world of technological approaches. This is in agreement with the Commission of the European Communities's (2012) concept that the use of the online environment in tertiary education is equivalent to the use of new multimedia technologies in it, and the internet not only makes it easier to communicate with people who live far away, but also improves the quality of communication.

The advantages of using online learning in tertiary education

Based on the answers to the question of whether the online environment is more convenient and flexible, it can be seen that the majority of students (70%) agreed. When issues of time, place, and student competence are considered, the adoption of online methods in higher education is significantly more adaptable than in traditional classrooms. According to Rosenberg and Foshay (2002), the online environment allows students to choose the most convenient time and place to enhance their learning process and experience. Smedley (2010)

added that most people agree that integrating the online environment into higher education gives students, teachers, and tertiary education institutions more freedom of time and where teaching and learning information may be provided and received. This observation demonstrates that convenience and flexibility are distinct advantages of the online landscape students appreciate.

With respect to the issue of self-discipline, which is crucial for students to work independently, the majority of students struggle to maintain it. A lower percentage of students (35%) felt more disciplined in an online learning environment. Holmes and Gardner (2006) clarified that this is because students can work at their own pace in online learning environments. Students are free to study and complete the tasks assigned to them by their teachers at their own pace, regardless of how quickly or slowly they are. In comparison to face-to-face lectures with close supervision, the online learning process typically becomes more relaxing, and students experience less stress. Self-discipline may become challenging as students can relax and learn at their own pace.

Consequently, a greater proportion of respondents (65%) disagreed that the online environment improved their discipline. This result validates the findings of Alexander et al. (2012), which were cited in the literature review. They found that online learners are more likely to procrastinate, fail to grasp material when they are not in direct contact with the instructor, and require more self-discipline.

Meanwhile, about half of all the respondents (55%) perceived that the online environment offers more individual attention due to them feeling more comfortable. In another question, approximately half of the respondents (50%) responded that they were sometimes shy about asking the lecturers questions during face-to-face classes but were able to do so using an online platform. In accordance with Rosenberg and Foshay's (2002) findings, online platforms used in universities are integrated with the traditional classroom to provide learners with the opportunity to engage in discussions with educators. They also emphasized that it helps students eliminate the fear of classroom interaction and that e-learning aids in breaking down the physical barrier between students and lecturers. Nevertheless, only half of the respondents in this study could confirm the conclusions of Rosenberg and Foshay (2002).

Issues of using online tools in tertiary education

In comparative research, Hameed et al. (2003) unveiled that using online learning could lead to internet congestion or excessive website use. In parallel to Hameed et al.'s (2003) analysis, this study recorded that 55% of the students experienced technical issues such as slow internet access, probably as a result of technical or internet connection problems. Such decade-old, unresolved technological disturbances may appear insignificant, but they have the potential to interrupt the learning process. Consistent with Hameed et al. (2003)'s study, the more recent study of Asio et al. (2021) noted that internet access remains a significant barrier to students' online learning.

Slightly more than half of the respondents (60%) attested that they did not feel motivated in the online learning environment due to the lack of lecturers' physical presence. The perception that lecturers are not guiding them indicates that students in online learning do require more attention from their teachers or lecturers than they do in traditional classroom settings. The

absence of physical eye contact and relatively limited proximity between educators and students in the virtual environment is unavoidable. Subsequently, the quality of the learning process is affected. Thus, instructors must maximize the potential for ICT interaction in a virtual learning environment and design educationally effective, high-quality programs to address the issue of motivation (Markova, Glazkova & Zaborova, 2017).

75% of respondents admitted they were unable to devote sufficient time to online learning because of their busy online class schedules, despite the fact that online learning forces students to be more independent. This high proportion suggests that the inability of students to manage their time in online learning environments effectively makes learning more difficult.

Online tools in students' learning process

In the 21st century, tertiary education has stressed the use of online technologies and online learning environments. However, a significant number of participants in the survey indicated that traditional classroom settings were more appealing to them and that they would prefer to take their classes in these settings over online ones. This corresponds to Kok Wei et al. (2021)'s survey that more students chose face-to-face classes over online classes. Despite the fact that two decades have passed, students' preference is still face-to-face classes when given the option, even though they are satisfied with their online experience.

Contradictory to their preference for traditional classrooms in person, all survey respondents (100%) agreed that an internet connection makes learning easier. Following that, 75% of the questionnaire participants expressed they could advance at their own pace and have complete control over their own learning. In response to the final question, more than half of the study's participants (65%) disagreed that online education is more efficient and quicker than traditional classroom instruction.

Conclusion

This research aimed to evaluate the effectiveness of the learning process in the online platforms of tertiary education. To this end, the researchers investigated the advantages and issues of online learning, including the effectiveness of online tools used in the learning process. The presented evidence illustrates that the online environment offers convenience and flexibility to learners. The trade-off for most students is that they need more self-discipline in this mode of study. While approximately half of the students believe the online environment offers individual attention and increases their propensity to ask questions, the other half do not see the advantage. Further analysis conveys that more than half of all students encounter issues such as slow internet speed (55%), lack of motivation (60%), and less dedication to online learning due to a busy schedule (70%). Although the online environment offers the advantage of the ease of access to resources and assignments and enables students to control their learning process, a significant proportion still favors traditional classroom settings because they do not think that using the online setting would help them learn faster or better.

The current research findings are a helpful resource for students and instructors in tertiary education who use blended learning. Regardless of the many advantages, conveniences,

flexibility, and accessibility to the internet that online learners have, it is important to look into solutions to some of the online problems they face. Colleges and universities must devise strategies to integrate traditional classroom instruction with online learning environments to enhance learning for the best learning outcomes.

Limitation and recommendation

This survey may need a wider coverage of issues concerning students who follow online environments. A larger-scale follow-up study focusing more on issues encountered by students with the online process is recommended for an impactful contribution to the advancement of remote learning for teaching and learning. It would be beneficial to solicit both students' and teachers' feedback on how to best combine the benefits of online and traditional learning in order to mitigate the disadvantages of the online platform.

References

- Asio, J.M.R., Gadia, E., Abarintos, E., Paquio, D., D., & Balce, M. (2021). Internet connection and learning device availability of college students: Basis for institutionalizing flexible learning in the new normal. *Studies in Humanities and Education*, 2(1), 56-59.
- Alexander, M. W., Truell, A. D., & Zhao, J. J. (2012). Expected advantages and disadvantages of online learning: Perceptions from college students who have not taken online courses. *Issues in Information Systems*, 13(2), 193-200.
- Alexander, M. W., Truell, A. D., & Zhao, J. J. (2012). Expected advantages and disadvantages of online learning: Perceptions from college students who have not taken online courses. *Issues in Information Systems*, 13(2), 193-200.
- Axmedova, T. B., & Kenjayeva, N. D. (2021). Advantages and disadvantages of online learning. *Eurasian Journal of Humanities and Social Sciences*, 3, 48-50.
- Arkorful, V., & Abaidoo, N. (2015). The role of e-learning, advantages and disadvantages of its adoption in higher education. *International Journal of Instructional Technology and Distance Learning*, 12(1), 29-42.
- Bahasoan, A. N., Ayuandiani, W., Mukhram, M., & Rahmat, A. (2020). Effectiveness of online learning in pandemic COVID-19. *International journal of science, technology & management*, 1(2), 100-106.
- Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, L., Wallet, P. A., Fiset, M., & Huang, B. (2004). How Does Distance Education Compare With Classroom Instruction? A Meta-Analysis of the Empirical Literature. *Review of Educational Research*, 74(3), 379-439. <https://doi.org/10.3102/00346543074003379>
- Commission of the European Communities. (2012). *The E-Learning Action Plan. Designing Tomorrow's Education*. http://europa.eu.int/comm/information_society/eeurope/index_en.htm
- Concannon, F., Flynn, A., & Campbell, M. (2005). What campus-based students think about

- the quality and benefits of e-learning. *British Journal of Educational Technology*, 36(3), 501–512. <https://doi.org/10.1111/j.1467-8535.2005.00482.x>
- Darius, P. S. H., Gundabattini, E., & Solomon, D. G. (2021). A survey on the effectiveness of online teaching–learning methods for university and college students. *Journal of The Institution of Engineers (India): Series B*, 102(6), 1325-1334.
- Faleh, A. A. (2011). Evaluating the Effectiveness of the E-learning Experience in Some Universities in Saudi Arabia from Male Students Perceptions Evaluating the Effectiveness of the E-learning Experience in Some Universities in Saudi Arabia from Male Students Preception. In *Education*. <http://etheses.dur.ac.uk/3215/>
- Hameed, S., Badii, A., & Cullen, A. J. (2008). Effective e-learning integration with traditional learning in a blended learning environment. *Proceedings of the European and Mediterranean Conference on Information Systems, EMCIS 2008*. <https://www.researchgate.net/publication/228422212>
- Hartshorne, R., & Ajjan, H. (2009). Examining student decisions to adopt Web 2.0 technologies: Theory and empirical tests. *Journal of Computing in Higher Education*, 21(3), 183–198. <https://doi.org/10.1007/s12528-009-9023-6>
- Holmes, B., & Gardner, J. (2006). *e - Learning 个性化系统的推荐策略研究——来自电子商务推荐系统的启示*. SAGE Publications.
- Heggart, K., & Yoo, J. (2018). Getting the most from Google Classroom: A pedagogical framework for tertiary educators. *Australian Journal of Teacher Education*, 43(3), 140-153.
- Khan, B. H. (2005). *Managing e-learning : design, delivery, implementation, and evaluation*. Information Science Pub.
- Klein, D., & Ware, M. (2003). E-learning: New opportunities in continuing professional development. *Learned Publishing*, 16(1), 34–46. <https://doi.org/10.1087/095315103320995078>
- Kok Wei, L., Najibah, J., & Noorulziwaty, K. (2021). Online Experience during Covid-19 Pandemic: An online Survey among Malaysian Polytechnic Students. Available from: <https://www.researchgate.net/publication/353878989> Online Learning Experience during Covid-19 Pandemic: An Online Survey among Malaysian Polytechnic Students [accessed Nov 22 2022]
- Markova, T., Glazkova, I., & Zaborova, E. (2017). Quality Issues of Online Distance Learning. *Procedia - Social and Behavioral Sciences*, 237(June 2016), 685–691. <https://doi.org/10.1016/j.sbspro.2017.02.043>
- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, 11(2), 309-319.
- Nguyen, T. T. A. (2022). Online education at Saigon University during the COVID-19 pandemic: A survey on non-English major college students' attitudes towards learning English. *AsiaCALL Online Journal*, 13(2), 1-20.

- Nguyen, H. U. N., Duong, L. N. T., & Pham, V. P. H. (2022). Written Corrective Feedback Strategies Applied by Van Lang University's EFL Lecturers in Teaching Online. *AsiaCALL Online Journal*, 13(2), 21-41.
- Oblinger, D.G., & Hawkins, B.L. (2005). IT Myths The Myth About E-learning. *EDUCAUSE Review*, 40(4), 14–15. <https://er.educause.edu/articles/2005/1/the-myth-about-elearning>
- Roddy, C., Amiet, D. L., Chung, J., Holt, C., Shaw, L., McKenzie, S., ... & Mundy, M. E. (2017, November). Applying best practice online learning, teaching, and support to intensive online environments: An integrative review. In *Frontiers in Education* (Vol. 2, p. 59). Frontiers Media SA.
- Rosenberg, M. J., & Foshay, R. (2002). E-learning: Strategies for delivering knowledge in the digital age. *Performance Improvement*, 41(5), 50–51. <https://doi.org/10.1002/pfi.4140410512>
- Rudestam, K. E., & Schoenholtz-Read, J. (2010). *Handbook of online learning*. SAGE Publications.
- Schack, S., & Foundation, K. (2015). The Effectiveness of E-Learning : An Explorative and Integrative Review of the Definitions , Methodologies and Factors that Promote e-Learning Effectiveness ResearchLAB : IT and Learning Design , Dep . of Learning and Philosophy , Aalborg. *The Electronic Journal of E-Learning*, 13(4), 278–290.
- Smedley, J. (2010). Modelling the impact of knowledge management using technology. *OR Insight*, 23(4), 233–250. <https://doi.org/10.1057/ori.2010.11>
- Steenkamp, L. P., & Rudman, R. J. (2013). Incorporating online tools in tertiary education.
- Wang, Y.-S., Wang, Y.-M., Lin, H.-H., & Tang, T.-I. (2003). Determinants of user acceptance of Internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5), 514. <https://doi.org/10.1108/09564230310500192>
- Young, S. S. C. (2003). Integrating ICT into second language education in a vocational high school. *Journal of Computer Assisted Learning*, 19(4), 447–461. <https://doi.org/10.1046/j.0266-4909.2003.00049.x>

Biodata

Ng Yim San, a senior English language teacher at Universiti Sains Malaysia (USM), has taught the language in Malaysia at primary, secondary and university levels for 33 years. She holds a B.A in English Language and Literature Studies and an M.A. in Linguistics and English Language. Her areas of interest are learner autonomy and blended learning.

Chan Hai Lin has just graduated with a Bachelor of Arts degree majoring in English from Universiti Sains Malaysia. Her areas of interest include academic writing, foreign languages and the psychology of language.