Changes in Instructional Formats: Which Learning Format is More Convenient for Postgraduate Students?

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Keywords	**Abstract**
convenience, face-to-face learning, online learning, blended learning	Changes in learning format between face-to-face, online, and blended learning impact learning convenience. Based on changes in learning formats, this research aims to reveal and explore information regarding the learning formats that postgraduate students feel is most convenient based on their experiences and conditions. This research used a phenomenological design to obtain comprehensive and in-depth data regarding the convenience of various learning formats and that are at the beginning of the transition between various instructional formats. Data sources were obtained from postgraduate study participants at various universities in Jawa, Indonesia, who had experienced changes in learning formats during their studies. Data was collected through direct observation and in-depth face-to-face and online interviews of 13 participants to capture real experiences and feelings. The data was then analysed using thematic qualitative analysis techniques with the help of the Atlas.Ti programme. The research results showed that all learning formats can optimise learning success if the resources are available and students are serious and focused on learning. For postgraduate students with good internet access, online learning was the most desired and convenient, both for those who were very busy and those who were just focused on studying. Ultimately, the choice of learning format should be based on carefully examining all available options to maximise their success in achieving their educational goals.

Introduction

The learning process in higher education has changed in the last few years, and most students prefer to learn through computer software or the internet (Patel et al., 2014). Several things have caused this change, for example, the existence of e-learning facilities making learning convenient for several reasons, including providing various recording facilities so that students can listen to lectures or revise topics as desired, learn from anywhere and improve their learning process by reviewing previous videos and presentations (Patel et al., 2014). In addition, the demand for online lectures has increased worldwide (Fidalgo et al., 2020; Ortagus, 2017). The results of a ten-year study in the United States (Allen & Seaman, 2013) found that university and college interest in online education continues to grow faster than traditional campus-based programmes.

Especially with the Covid-19 pandemic, learning in almost the whole world has changed to distance learning, and we are now used to such an instructional learning format.

Apart from distance learning in the form of online learning, two other instructional formats are in use: face-to-face and blended learning. Each of these formats certainly has advantages and disadvantages but, like any instructional format, convenience is one of the most important things that must be fulfilled. This is because convenience is an essential determinant of satisfaction (Cole et al., 2014), perceived value and student consideration in choosing an instructional format of a lesson (Sanford et al., 2017). Many studies have shown the convenience of using these various instructional formats. The convenience of face-to-face learning is based on classroom interaction with peers, lecturers or learning content, while online learning emphasises flexibility, accessibility, the convenience of balancing personal, professional and academic life, and the desire to experience new ways of learning (Mather & Sarkans, 2018).

Although there are many studies on the convenience of learning in the three instructional formats, these studies are still partitioned into the specific instructional formats separately, without examining the transitional aspects. In addition, few studies have been conducted on postgraduate students, focusing more on undergraduate students or the level below them. So, conducting studies on the convenience of learning becomes crucial by reviewing the transitional aspects of instructional formats for postgraduate students. These postgraduate students were chosen because they have complex problems or greater responsibilities when compared to students at a lower level, even though the convenience and flexibility of learning is also a driving force for those with family priorities to continue their studies (Mather & Sarkans, 2018). This convenience and flexibility allow people to manage education, jobs, and families (Nortvig et al., 2018).

On the other hand, the transitional aspects of instructional formats are based on the assumption that learning convenience is closely related to something that someone has been used to or previous learning experiences so, that when a sudden change occurs, it is possible to reduce or even eliminate this convenience (Wart et al., 2020). For example, several studies (Legon & Garrett, 2019; Xu & Jaggars, 2014) found college students experience more difficult in online classes compared to traditional classes due to their prior years of familiarity with traditional classes. Of course, this also applies in the new era after the Covid-19 pandemic but with a different (inverse) case, where students at every level in Indonesian tertiary institutions must carry out face-to-face or blended learning, even though online learning previously provided convenience.

Considering this phenomenon, is it appropriate to implement face-to-face or blended learning amidst public concerns about the spread of Covid-19 at this time? What learning format is truly convenient for postgraduate students? This research was conducted to answer these questions and, at the same time, complement previous research by looking at how convenient learning is at the beginning of the transition from online to face-to-face or blended learning and vice versa, especially for graduate students.

Research Questions

The main research question driving this phenomenological research was to explain and determine the most convenient learning format for postgraduate students, especially when transitioning between learning formats, which is divided into the following sub-questions (SQ):

SQ1: How does postgraduate students' perceived convenience with different types of learning formats influence academic success?

SQ2: What obstacles are experienced at the beginning of the transition between learning formats?

SQ3: What learning format do postgraduate students feel is most convenient?

Methods

This study used the phenomenological method, which is believed to be effective in exploring how individuals experience a phenomenon together (Creswell & Poth, 2017), so it is suitable for obtaining comprehensive data and depth regarding the convenience of various instructional learning formats based on postgraduate students' experiences and feelings.

Sample Selection

The participants in this research were 13 doctoral students from the 2019 to 2021 class from various universities in Jawa, Indonesia. The selection of participants was based on several things, including the complexity of their tasks and responsibilities, their place of origin, and their experience of learning face-to-face, online or blended. So, collectively, participants represented a perspective of learning convenience based on various responsibility priorities, regions of origin and experiences with changing learning formats. This diversity was essential because the convenience variable in this study was based on the dimensions of time, interaction or effort needed by students to access the materials and experiences needed in learning, as well as their balance between personal, professional and academic life (Mather & Sarkans, 2018; Muthuprasad et al., 2021; Sanford et al., 2017).

Data Collection

Data was collected through direct observation over three semesters, and in-depth interviews, with several participants, to gain a deeper understanding of the phenomenon under study and to validate the findings through various data sources. Direct observation allows researchers to achieve a more natural sense of how the phenomenon under study occurs in everyday contexts. Meanwhile, in-depth interviews provide the opportunity to interact actively with participants involved in the phenomenon under investigation, thereby allowing researchers to explore participants' thoughts, feelings and perspectives more deeply. Further combining direct observation and in-depth interviews can enable cross-validation between data obtained through these two methods.

The interviews consisted of 14 semi-structured questions and were conducted in person and online, all were recorded and then transcribed by the researcher. We used interviews because it is the most widespread data collection procedure in qualitative research (Sanjani, 2020). In-depth interviews were prepared for 13 participants according to predetermined criteria to describe and determine the most convenient instructional learning format and the reasons, especially at the beginning of the transition to instructional format, based on the experiences and feelings of postgraduate students. Each interview takes approximately thirty minutes to answer all the questions, regardless of the length of introductions, pleasantries and delivery of questions. Each participant was given a pseudonym to protect their identities, and their real names were never attached to the interview data.

This relatively short interview was conducted to avoid fatigue or physical discomfort and help participants focus on providing good responses. In addition, interviews were focused on the central problem or core research questions, allowing researchers to maximise the available time to get information relevant to the research objectives. These questions also focus on four main

issues related to learning convenience according to Mather and Sarkans (2018); Muthuprasad et al. (2021); and Sanford et al. (2017), including: (1) respondents' responses regarding various learning formats and their convenience based on time flexibility, accessibility, costs and balance between responsibilities for family, study and work; (2) perceived obstacles to various learning formats and transitions between learning formats; and (3) the desire for the most convenient learning format based on a balance between responsibilities to family, college and work. Each participant needed around 14 minutes of interview time for the first and second issues while answering the third issue took about two minutes. Please note that this interview process used Indonesian, which was then translated into English.

Data Analysis
The data for this study were analysed using thematic qualitative analysis techniques for two reasons: firstly, the thematic analysis provides us with a valuable technique for investigating the perceptions of different participants and highlighting similarities and differences in those perceptions (Braun & Clarke, 2006) and, secondly, because thematic analysis provides techniques that help to summarise essential qualities of large data sets (King, 2004).

Data analysis begins with "data reduction" using coding techniques (Miles & Huberman, 1994) because it allows the data to be linked back to the research question (Atkinson, 2002). We encoded data using "scratch" and "pattern" encoding. The "initial" coding was done by detecting participant statements that lead to the definition of factors and any constraints that affected the convenience of learning in the various instructional formats experienced by the participants. In "pattern" coding, we sorted all the pre-coded data into appropriate themes, sub-themes and components based on the research questions. We did this using the Atlas.Ti programme on the interview transcript soft file.

In the second stage, we systematised all the data coded in the first stage into relevant categories and themes according to the research questions and then focused on displaying the data. At this stage, we double-checked each transcript, coding any snippets of text that seemed related to the research question. As in the first stage, we also used the Atlas.Ti programme. In the third phase, "conclusion" and "verification", we reviewed and named the themes developed in the second phase. To ensure that the last name of the theme was clear, we did go through all the themes generated in the previous phase and then verbalised the last name of each theme appropriately to make sure it was easy to understand.

Results

This study explores postgraduate students' experiences and feelings toward the convenience of various instructional learning formats. Based on the responses of semi-structured interviews, it was found that postgraduate students had well-formulated beliefs about how convenient learning was, what the conveniences and constraints of learning through various formats of instruction were, and what format was most suitable for their conditions and convenience.

Convenience of Various Learning Formats
Regarding the convenience of face-to-face learning, it turns out that postgraduate students experience less difficulty based on time flexibility and other workloads. Sandji said, "From a convenience standpoint, because we have been convenient for two years online, suddenly it's offline pccekk! Sometimes time becomes inefficient because we can't do anything else simultaneously (laugh)." This opinion is what Maldi said, "Getting better, but needs more

tweaking." Students with a workload or other activities besides studying find it difficult and inconvenient. Masoto said, "Until now, only one subject is held face-to-face. Yes, it is rather difficult because I have to negotiate with my teaching team so that they can back me up in my work, so I have to leave my workplace for a moment to attend lectures face-to-face. So actually, I feel inconvenienced because I also need to remotely supervise my students who are studying while I also have to attend lectures elsewhere." Ansya also said, "It's not convenient. Because of that, the workload and responsibilities are also heavy. Even though it is still in the same institution between teaching and learning, I think it breaks the focus if learning is conducted face-to-face."

Regarding the convenience of online learning, it turns out that postgraduate students feel this format is more convenient and prefer it over other lecture formats. But even though it feels the most convenient, online learning can be inconvenient when internet connection interruptions occur. As stated by Sandji, "Lecture online, yes, definitely more convenient, the important thing is the data package, the smooth network is convenient. If the network is not good, power outages, strong winds, bad weather, aaaaa! But from a convenience point of view, we can play the recordings." Himya expressed this opinion: "In terms of cost and time flexibility, it is very efficient, and the delivery of material from lecturers now feels convenient, feels clear if it is delivered online because apart from that we can record it and if it is needed later, we can play it back." In line with this, Masoto said, "In terms of convenience for online lectures, of course, I feel convenient because my workplace is supported by excellent internet accessibility, so I can attend lectures in my workplace without leaving it." Ansya also feels that online learning is the most convenient, "It's most convenient for me. It can be done while doing other work, and it can be taken. At the same time, work at home or in the family is not bound by place or time. Also, the position that I experience internet access can be accessed, so I feel online learning is the best format."

Blended learning is quite convenient, as long as the facilities in the class are adequate and helpful as a variation of learning formats. However, this format has a weakness in terms of focus during lectures. Sandji said, "If it's blended, it's almost the same as online, meaning we can sometimes enter, sometimes go online. But that was earlier, as long as the supporting devices in the class are sufficient because sometimes the voices of people in Zoom cannot be heard in class, the lecturer in class sometimes forgets to turn on the microphone, and if they write on the whiteboard, it becomes invisible to those on Zoom." Similarly, Masoto said, "Tend not to feel so convenient, right, because from existing experience, blended there doesn't seem to focus on the center of attention from the students themselves, meaning whether it's the classroom or the lecturer, or the online space right? being three centers (three different concerns)." Even though Ansya feels that blended lectures are still quite convenient, "I think the combination with blended what I've experienced is interesting and quite good, yes, quite good. It's not always face-to-face, nor is every lecture always online."

Constraints at the Beginning of the Transition Between Learning Formats
Previous research has shown that learning convenience is closely related to previous learning experiences or something students have been used to do so that when there is a change, it requires effort to adjust to feel convenience. This opinion aligns with Maldi's "Needs more adjustments to the system used". Sandji, who has experienced the transition from online learning to face-to-face, had challenges in time management and he also feels more tired, "when switching from online to face-to-face, haaaaah that's the challenge, the preparation time becomes

more many. Then, it turns out that when we come back face-to-face, we are more tired. I am, I am more tired. Because if we go online, for example, if we are tired of staring at the screen, we can, for example, stretch out. For example, in class, it's impossible for us to stretch out, so yeah, those factors may influence it." Masoto agreed with this when he had to schedule activities because he had to consider the allocation of time for mobilization between activities, "because when we go online we can arrange it in such a way, activities can be condensed like that. But when we combine it with face-to-face meetings, of course, we have to anticipate this potential, that mobility, eeer, the time allocation for that mobility also needs to be considered." And for Yuda, this transition only required more effort to adapt, "Actually there are no more obstacles, but it only requires a little adaptation. So far, we are somewhat convenient with online learning, so it takes more effort to get used to offline or blended learning."

Discussion

There are various types and levels of higher education in Indonesia, including universities, institutes, academies, vocational or polytechnic schools and high schools, and also diploma, bachelor's, master's, and doctoral programme levels. Postgraduate programmes themselves include master's, doctoral, and master's to doctoral degrees. The master's programme has a normal duration of two years, with the first two or three semesters covering theoretical studies while the final semester is to complete a thesis that focuses on research and more in-depth study in a particular field. The doctoral programme has a normal duration of three years, with the first two or three semesters spent studying theory and the remainder of the following semester being used to complete a dissertation that focuses on research and more in-depth study in a particular field. The master's to doctoral programme (PMDSU) focuses on research and more in-depth study in a specific area, with a normal duration of four years, where students take a master's programme, which is immediately continued into the doctoral programme and is then followed by a dissertation at the end of the study period. Apart from that, there is also a doctoral by-research programme, where students focus only on research and attend scientific conferences during the three years of normal study time.

This research will be very relevant and useful in higher education in Indonesia (and elsewhere with similar contexts), especially postgraduate programmes, because it uncovered and explored information about the learning format that best suits the convenience felt by students. Convenience referred to here is different from comfort, where convenience could mean ease of learning while maintaining a balance between various tasks or roles in a learner's life. This statement follows the opinion of Hussein and Hilmi (2021); Nortvig et al. (2018); and Sanford et al. (2017), where convenience is related to time, effort or workload and freedom in learning. Meanwhile, comfort is the level of physical or psychological comfort needed to carry out an activity or task, such as a sense of security, calm and freedom from stress or anxiety (Hanna, 2023; Lau et al., 2019; Stewart, 2021).

Convenience of Various Learning Formats

Regarding the convenience of face-to-face learning, it turns out that most postgraduate students feel less convenience or even inconvenience. The inconvenience is due to several reasons. Firstly, now that students are used to and feel convenience with online lectures, when it suddenly changes it will cause inconvenience, and it takes more effort to adapt; this is following the findings of Wart et al. (2020). The second reason is the flexibility of time. Most postgraduate students already have family and work responsibilities, so they need a flexible lecture format to

help balance academic, family and work life. So participants prefer and tend to find more convenience with online lecture formats. Because, for some students, convenience and flexibility are important factors in their learning (Hsu & Hsieh, 2014; Kiviniemi, 2014; Shorey et al., 2018). But even so, there are still those who feel convenience with face-to-face learning because they are more able to focus while studying and because the internet network in their neighborhood is inadequate for online learning.

Online learning will be seen as a futuristic instruction format even after the Covid-19 pandemic ends. It will be a setback if, after the pandemic ends, learning returns to a full face-to-face learning format. According to Sandji, "If after the pandemic we even turned offline, in fact, in my opinion, it is a setback because learning that we were already familiar with was technology-based, why did we leave it like that?". Therefore, the use of this format becomes a necessity for the times, and that, too, because it has the same effectiveness relatively as the face-to-face format, as long as it is scheduled and applied to postgraduate students. In addition, online learning allows students to learn in a convenient location, which allows them to balance professional development with personal and work commitments (Sinclair et al., 2015).

The convenience of online lectures, apart from the habit and flexibility factors mentioned above, is also based on the cost factor, where it is seen as a cheaper course because it only requires additional facilities in the form of the internet, which is currently relatively inexpensive. In addition, because of the busy schedule and the burden of responsibilities other than studying, this format is more time efficient because it reduces the need for mobility. It should be emphasised that online learning provides a better impact in terms of independent learning than face-to-face learning (Rodríguez-Abad et al., 2023). It also has advantages in terms of flexibility, accessibility and cost-effectiveness (Chen, 2023).

Participants also chose online because, in this format, they could do other work during the lecture process, such as babysitting, supervising other people, and so on. However, multitasking activities are not suitable because, in lectures, whatever the format, you should remain focused. Also, in this format, students can repeat learning by viewing recorded lectures, which helps them gain the required knowledge. Even though online learning is considered the most convenient and is in demand, it can become inconvenient when there are interruptions to the internet connection. These findings also follow findings by Chen (2023) that the disadvantages of online learning include feeling less motivated and involved in learning, internet connectivity problems and the inconvenience of being in different time zones. So, if the internet connection is good and learning motivation is high, this format is the most convenient.

Blended learning has almost the same effectiveness as the online format but it demands more focus and adequate supporting tools. Blended learning demands more focus because there are face-to-face and online lectures at one time. The attention of lecturers and students will be divided between these two situations in order for learning to remain effective. It requires a stronger focus. Also, this format requires adequate supporting devices so that when conveying material via blackboards in class or online media, it can be accessed by all students. So, blended learning is quite convenient as long as the facilities in the class are adequate, and it is helpful as a variation of learning formats so that students don't get bored quickly. However, this format has a weakness in terms of focus during lectures. Because the focus of learning is divided into online and offline spaces, it can cause you to experience inconvenience.

Constraints at the Beginning of the Transition Between Learning Formats

Previous research has shown that learning convenience is closely related to previous learning experiences (Wart et al., 2020), so when there is a change in learning format, it requires effort to adjust to feel a level of convenience. The effort here is mainly related to time, for example, switching from online to face-to-face or blended, so students must find extra time to travel to the classroom. Requiring extra time, of course, depends on how far students have to travel to reach the class, making it less efficient for those who have other activities besides studying. This condition is proven by direct observations that show not a few students were late for class, whereas when studying online, almost no students were late in joining Zoom meetings.

Meanwhile, the effort when switching from face-to-face to online is in the form of accessing communication devices, internet quotas, and having to learn how to use technology media such as Zoom meetings, Google Meet, Google Classroom, Learning Management Systems and so on. But for the learning process, there were no significant obstacles. As Anggrek said, "It's not difficult to adapt in learning, but some aspects such as timing and so on need more adjustments". This opinion is expressed in findings by Gopalan et al. (2021) that postgraduate students can adapt well and their self-confidence has increased.

The Most Convenient Learning Format

The best learning format for postgraduate students is the most convenient one that can help them achieve their educational goals. Because convenience is an essential determinant of satisfaction for educational success (Cole et al., 2014; Sulaiman, 2014). So that through learning that is convenient, flexible, easily accessible, and even cost-effective, students can learn independently and increase the effectiveness of their learning, which has an impact on improving their academic achievement (Al-Kahtani et al., 2022; Almahasees et al., 2021). The findings of this study and these opinions highlight how convenience can significantly impact a student's academic experience and success.

Based on the results of in-depth interview responses from several samples, it was found that the online lecture format was the most popular and the most convenient. And, in online lectures, students also don't feel like they are missing anything. They can study well, discuss with fellow students and consult quickly with lecturers. These findings follow the findings of Aderibigbe (2021) and Gopalan et al. (2021), wherein online learning, collaborative activities and discussions in class can be carried out effectively and can increase deep learning as long as educators provide students with clear guidelines and a reasonable time to interact with their study groups. The results of direct observations related to online learning, especially for doctoral students, also show extraordinary learning results, where most of them produce works in the form of intellectual property rights and scientific articles. Apart from that, they also show a high sense of responsibility and experience convenience because the students have the freedom to regulate themselves when the time and conditions are most suitable for studying, as well as achieving their targets. These findings are also relatively the same when students learn through face-to-face or blended learning, when they also produce works in the form of scientific articles, so it is safe to say that there is almost no difference in learning outcomes between the three learning formats for postgraduate students. As the results of Berga et al (2021) and Larson & Sung (2009) show, there was no significant difference in knowledge or performance between the blended online and face-to-face groups. Because, after all, the success of learning is directly related to students' willingness to participate (Hamdan et al., 2022).

Implications for Higher Education

To improve the learning experience and student achievement, educational institutions must pay attention to and create a convenient learning environment for students. Educational institutions can help students to achieve their best potential by creating a convenient learning environment. Apart from that, educational institutions must also continue to adapt to technological developments that have changed how we work and learn so that students can gain knowledge and skills that continue to develop.

Face-to-face learning has many advantages in social interaction and is very suitable for undergraduate education levels and below. However, for the postgraduate education level, online learning is chosen as the most convenient learning format because of its effectiveness in learning. Online learning has advantages in terms of flexibility, accessibility and cost. This advantage can help students who study while working or have other priorities besides studying, and those with geographical limitations to access higher education. However, paying attention to social interaction, motivation and monitoring student progress is still necessary. Also, if you want to use blended learning, it is crucial to improve facilities and infrastructure. This increase includes providing the required software and hardware, the quality of internet connectivity and training lecturers on the use of technology.

Conclusion

This study suggested three main findings based on the objectives and research questions. *First*, the convenience of various instructional learning formats is based on several factors, including habits, time flexibility, costs, classroom facilities, and the balance of life (personal, work and academic) based on busy schedules and a high level of responsibilities other than attending lectures. *Second*, the obstacle when changing the learning format from online to face-to-face or blended was related to the time and cost of traveling to the place of study. Whereas, when going from face-to-face to online in the form of self-adjustment using Zoom meetings, Google Meet, Google Classroom, Learning Management Systems, internet networks, and so on. *Third*, all learning formats can optimise learning success as long as students are serious and focused while studying, and what is no less important is the availability of resources. Ultimately, the selection should be based on a sober review of all available options to maximise success in achieving student educational goals. Online learning is the most desirable for postgraduate students with good internet access. It feels the most convenient for those who are highly busy or focused on studying.

References

Aderibigbe, S.A. (2021). Can online discussions facilitate deep learning for students in General Education? *Heliyon*, *7*, e06414. https://doi.org/10.1016/j.heliyon.2021.e06414

Al-Kahtani, N., Almurayh, A., Subbarayalu, A.V., Sebastian, T., Alkahtani, H., & Aljabri, D. (2022). Sustaining blended and online learning during the normal and new normal conditions in a Saudi higher education institution: Health science students' perspectives. *Heliyon*, *8*. https://doi.org/10.1016/j.heliyon.2022.e10898

Allen, I.E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Babson Survey Research Group and Quahog Research Group. http://www.onlinelearningsurvey.com/reports/changingcourse.pdf

Almahasees, Z., Mohsen, K., & Amin, M. O. (2021). Faculty's and students' perceptions of online learning during COVID-19. *Frontiers in Education*, *6*, 638470. https://doi.org/10.3389/feduc.2021.638470

Atkinson, J. (2002). Four steps to analyse data from a case study method. *ACIS 2002 Proceedings*.

Barakat, M., Farha, R.A., Muflih, S., Al-Tammemi, A.B., Othman, B., Allozi, Y., & Fino, L. (2022). The era of E-learning from the perspectives of Jordanian medical students: A cross-sectional study. *Heliyon*, *8*, e09928. https://doi.org/10.1016/j.heliyon.2022.e09928

Berga, K.-A., Vadnais, E., Nelson, J., Johnston, S., Buro, K., Hu, R., & Olaiya, B. (2021). Blended learning versus face-to-face learning in an undergraduate nursing health assessment course: A quasi-experimental study. *Nurse Education Today*, *96*, 104622. https://doi.org/10.1016/j.nedt.2020.104622

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Briggs, M.A., Thornton, C., McIver, V.J., Rumbold, P.L.S., & Peart, D.J. (2023). Investigation into the transition to online learning due to the COVID-19 pandemic, between new and continuing undergraduate students. *Journal of Hospitality, Leisure, Sport & Tourism Education*, *32*, 100430. https://doi.org/10.1016/j.jhlste.2023.100430

Chen, L.-H. (2023). Moving forward: International students' perspectives of online learning experience during the pandemic. *International Journal of Educational Research Open*, *5*, 100276. https://doi.org/10.1016/j.ijedro.2023.100276

Cole, M.T., Shelley, D.J., & Swartz, L.B. (2014). Online instruction, e-learning, and student satisfaction: A three year study. *The International Review of Research in Open and Distributed Learning*, *15*(6), 111-131. https://doi.org/https://doi.org/10.19173/irrodl.v15i6.1748

Creswell, J.W., & Poth, C.N. (2017). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Sage Publications, Inc.

Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J.A. (2020). Students' perceptions on distance education: A multinational study. *International Journal of Educational Technology in Higher Education*, *17*(18), 1-18. https://doi.org/https://doi.org/10.1186/s41239-020-00194-2

Gopalan, C., Butts-Wilmsmeyer, C., & Moran, V. (2021). Virtual flipped teaching during the COVID-19 pandemic. *Advances in Physiology Education*, *45*, 670-678. https://doi.org/10.1152/advan.00061.2021

Hamdan, D., Pamoukdjian, F., Lehmann-Che, J., Bazelaire, C. de, Vercellino, L., Julien Calvani, Battistella, M., Bertheau, P., Falgarone, G., & Bousquet, G. (2022). A massive open online course to teach undergraduate medical students in oncology: Keys of success. *Heliyon*, *8*, e11306. https://doi.org/10.1016/j.heliyon.2022.e11306

Hanna, H.A.F. (2023). Towards domestic space design in the post-COVID-19 era: A review of relevant literature. *Alexandria Engineering Journal*, *73*, 487-503. https://doi.org/10.1016/j.aej.2023.04.067

Hsu, L.-L., & Hsieh, S.-I. (2014). Factors affecting metacognition of undergraduate nursing students in a blended learning environment. *International Journal of Nursing Practice*, *20*(3), 233-241. https://doi.org/10.1111/ijn.12131

Hussein, L.A., & Hilmi, M.F. (2021). The Influence of convenience on the usage of learning management system. *Electronic Journal of E-Learning*, *19*(6), 504-515. https://doi.org/10.34190/ejel.19.6.2493

King, N. (2004). Using templates in the thematic analysis of text. In *Qualitative methods in organization studies* (pp. 256-270).

Kiviniemi, M.T. (2014). Effects of a blended learning approach on student outcomes in a graduate-level public health course. *BMC Medical Education*, *14*(47). https://doi.org/10.1186/1472-6920-14-47

Larson, D.K., & Sung, C.-H. (2009). Comparing student performance: Online versus blended versus face-to-face. *Journal of Asynchronous Learning Networks*, *13*(1), 31-42. https://doi.org/10.24059/olj.v13i1.1675

Lau, S.S.Y., Zhang, J., & Tao, Y. (2019). A comparative study of thermal comfort in learning spaces using three different ventilation strategies on a tropical university campus. *Building and Environment*, *148*, 579-599. https://doi.org/10.1016/j.buildenv.2018.11.032

Legon, R., & Garrett, R. (2019). The changing landscape of online education, quality matters & eduventures survey of chief online officers. In *CHLOE 3: Behind the numbers*. Quality Matters and Eduventures. https://www.qualitymatters.org/sites/default/files/research-docs-pdfs/CHLOE-3-Report-2019-Behind-the-Numbers.pdf.

Mather, M., & Sarkans, A. (2018). Student perceptions of online and face-to-face learning. *International Journal of Curriculum and Instruction*, *10*(2), 61-76.

Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis* (2nd ed.). Sage Publications.

Muthuprasad, T., Aiswarya, S., Aditya, K.S., & Jha, G.K. (2021). Students' perception and preference for online education in India during COVID-19 pandemic. *Social Sciences & Humanities Open*, *3*(1), 1–11. https://doi.org/https://doi.org/10.1016/j.ssaho.2020.100101

Nortvig, A.-M., Petersen, A.K., & Balle, S.H. (2018). A literature review of the factors influencing e-learning and blended learning in relation to learning outcome, student satisfaction and engagement. *The Electronic Journal of E-Learning*, *16*(1), 46-55.

Ortagus, J. C. (2017). From the periphery to prominence: An examination of the changing profile of online students in American higher education. *The Internet and Higher Education*, *32*, 47-57. https://doi.org/https://doi.org/10.1016/j.iheduc.2016.09.002

Patel, H., Patel, A., & Shah, P. (2014). Impact of e-learning in the development of student life. *IMPACT: International Journal of Research in Engineering & Technology*, *2*(4), 233-238.

Reimers, F.M., & Schleicher, A. (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020*. OECD. https://globaled.gse.harvard.edu/files/geii/files/framework_guide_v2.pdf

Rodríguez-Abad, C., Martínez-Santos, A.-E., Fernandez-de-la-Iglesia, J.-C., & Rodríguez-Gonzalez, R. (2023). Online (versus face-to-face) augmented reality experience on nursing students' leg ulcer competency: Two quasi-experimental studies. *Nurse Education in Practice*, *71*, 103715. https://doi.org/10.1016/j.nepr.2023.103715

Sanford, D., Ross, D., Rosenbloom, A., & Singer, D. (2017). Course convenience, Perceived learning, and course satisfaction across course formats. *E-Journal of Business Education & Scholarship of Teaching*, *11*(1), 69-84.

Sanjani, M. I. (2020). Using qualitative case studies in research on foreign language teaching and learning. *The Journal of Asia TEFL*, *17*(3), 758-1157. https://doi.org/10.18823/asiatefl.2020.17.3.16.995

Shorey, S., Siew, A.L., & Ang, E. (2018). Experiences of nursing undergraduates on a redesigned blended communication module: A descriptive qualitative study. *Nurse Education Today*, *61*, 77–82. https://doi.org/10.1016/j.nedt.2017.11.012

Sinclair, P., Kable, A., & Levett-Jones, T. (2015). The effectiveness of internet-based e-learning on clinician behavior and patient outcomes: A systematic review protocol. *JBI Database of Systematic Reviews and Implementation Reports*, *13*(1), 52-64. https://doi.org/10.11124/jbisrir-2015-1919

Stewart, M.K. (2021). Social presence in online writing instruction: Distinguishing between presence, comfort, attitudes, and learning. *Computers and Composition*, *62*, 102669. https://doi.org/10.1016/j.compcom.2021.102669

Sulaiman, F. (2014). Online learning conveniences from students'perception: A case study in Universiti Malaysia Sabah. *Global Journal of Human Social Science*, *14*(1), 39-44.

Wart, M. Van, Ni, A., Medina, P., Canelon, J., Kordrostami, M., Zhang, J., & Liu, Y. (2020). Integrating students' perspectives about online learning: a hierarchy of factors. *International Journal of Educational Technology in Higher Education*, *17*(53), 1-22. https://doi.org/https://doi.org/10.1186/s41239-020-00229-8

Xu, D., & Jaggars, S.S. (2014). Performance gaps between online and face-to-face courses: differences across types of students and academic subject areas. *The Journal of Higher Education*, *85*(5), 633-659. https://doi.org/https://doi.org/10.1080/00221546.2014.11777343

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