SHIFTING TO REMOTE LEARNING: STUDENTS' ENGAGEMENT AND ANTICIPATING CHALLENGES: A REVIEW ARTICLE

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ABSTRACT

The present study seeks to provide an overview of online learning, the concerns of remote teaching, the challenges facing online teaching, and the strategies that might be adopted to enhance students' engagement in the educational process. The study found that effectiveness, quality, engagement, costs, and equity were the most reported concerns about remote teaching. In addition, the study showed that lack of funding, insufficient training, end-user difficulties, inaccessibility, hacking, and the impersonality of technology-mediated instructions were the most often encountered challenges with online learning. Finally, the study reported that building rapport with students, encouraging interactions within the online class, using multiple forms of media/technology, and making connections between course content and current cultural events were the most significant strategies to enhance students' engagement in online teaching.

Keywords: students' engagement, challenges, online learning, remote teaching

INTRODUCTION

A short time ago, it was believed that the internet was nothing but a place for chatting, reading newspapers, shopping, and seeing forums, then the internet began to be used in educational institutions (Ratheeswari, 2018). Websites for schools and universities sprung up on the internet, and the perception of the internet, smartphones, and computers changed. The internet is now seen as an essential educational tool, as the number of schools and universities connected to the internet is increasing day by day (Abbasy & Quesada, 2017). The increase in the number of teachers and students using computers, the internet, and smartphones in the learning process is due to the characteristics of elearning and its positive effects (Anshari et al., 2017). The study of Tarhini et al. (2017) revealed that elearning is enjoyable and interesting, effectively achieves desirable results, and improves students' acquisition of concepts.

Elearning in and of itself is not a goal; it

is a path to an educational end. A number of teaching and learning processes are still carried out that have very little educational value: for example, some interactive lessons are offered online without a specific learning objective and in a mechanical way—the result is ineffective and totally boring (Duin & Tham, 2020). Today too, in the lecture halls, much of the material is still traditionally taught at a time when realistic approaches are needed. Finally, whether you use an on-site lecture, multimedia videos, or something else, it doesn't matter—as long as your students are able to achieve the required learning goals in an effective manner (Baskaran, 2018). High-quality online learning programs are highinput processes that require time to develop and significant investment in operating. Many of us worry that the rapid switch to distance learning will tarnish the reputation of online education (Malik & Fatima, 2017). This does not mean, however, that the transition that the global crises (such as

COVID-19) require to distance teaching would not be a good choice for student learning. Rather, it is expected that the greatest future benefits of virtual teaching will come after our teachers and students return to their regular classes (Duin & Tham, 2020). The imperative of teaching and learning using asynchronous systems (Canvas, Blackboard, D2L) and synchronous platforms (Zoom) will reap significant benefits when these methods are put in place during face-to-face teaching. We will return from the global crises, such as COVID-19, with a shared understanding on a much broader scale that digital tools are complementary and not alternatives to direct learning and its attractiveness (Markova et al., 2017).

OVERVIEW OF ONLINE TEACHING

There are a couple of different ways that course material can be presented to students online. First, the course might be synchronous, which means that you and your students are meeting at the same time, but not in the same place, for example in a Zoom room or another video conference space (Malik & Fatima, 2017). Second, the course might be asynchronous, meaning the teacher and the students are not meeting at the same time and or in the same place. Instead of meeting in real time, the student and the instructor would post materials to the internet such as lessons, videos, or other online activities and give the students a certain timeframe in which to complete the task (Hadullo et al., 2018).

Also, there are several different ways that the teacher can communicate with the students remotely. When talking about distance learning or remote education, we often talk about using the internet as a medium (Toquero, 2021), so the teacher can use the internet to communicate with the students via email, videoconference, discussion forums, and chat rooms, and by posting videos and screencasts and even using a Zoom room for some real-time conferencing (Hodges et al., 2020). But if you have students who don't have a reliable internet connection or who would prefer not to communicate on the internet, the instructor can communicate with them by telephone and text messages. Even though the fact that teachers can reach students by phone or text may seem obvious when thinking about online teaching, it's easy to overlook some of the more traditional ways of contacting people remotely, and sometimes an individual phone call and conversation with the student can really make a difference (Ali, 2020).

There are different options available for learning management systems and video conference software. A learning management system (LMS) is basically the technology that houses the online course and maintains and organizes the course content (Alenezi, 2018). In the LMS, the teacher can upload course materials and send a blast email to the students, while students can submit their assignments on the LMS and the teacher can grade assignments using the LMS. Examples of LMS brands include Blackboard, Canvas, Moodle, and Google classroom. There is also the option of using video conferencing, such as Zoom and Google Meet, to provide synchronous online teaching. Even if the online course is asynchronous, videoconferencing technology can be useful to prerecord and edit videos that can be then uploaded to the learning management system or to hold virtual office hours or other meetings with students (Duin & Tham, 2020).

In addition, there are a number of options with regard to the mechanisms through which the instructor provides course content to the students. These include—but are not limited to—voiceover PowerPoint presentations, voice threads, instructor's recorded lectures, screen capture videos, YouTube, open educational resources, discussion boards, and blogs.

CONCERNS ABOUT REMOTE TEACHING

There are a number of concerns that teachers and leaders of educational institutions have had with remote teaching. One concern is, how effective is online teaching? Are students going to be able to learn as effectively in an online course as they are in a face-to-face classroom, and related to the concern of effectiveness is the concern about quality: What is the quality of remote instruction? Will the learning standards and expectations be the same for an online course as it is for a face-to-face course? (Bozkurt & Sharma, 2020).

Another concern is the engagement of students. Will faculty be able to engage students effectively in an online course? Are students more likely to tune out or less likely to participate actively in an online class? This may be particularly a concern for an asynchronous online class where

students and the instructor are not meeting all at the same time. The costs of remote instruction are also a concern. Educational institutions need to have an infrastructure in place to support online learning, including sufficient licenses for learning management and video conferencing software, sufficient training and technical support, sufficient computing resources, and resources to protect against computer viruses and malware. There are also costs for students to participate in online learning (Venton & Pompano, 2021). These include access to the technology that they will need to access the online class, including the computer software and internet access. The cost for students is in addition to what they are going to pay for tuition and fees and books and other costs of attending, so for low-income students, the additional costs associated with online learning can make the programs cost prohibitive. Closely related to the issue of cost is the issue of equity. Again, low-income students, students who do not have internet access, and some students with disabilities, have more difficulty accessing and participating in online classes (Trust & Whalen, 2020).

Some additional concerns about remote teaching include whether the technology is user friendly, that the technology will be relatively easy for new users to learn, and that students and instructors will be able to use the technology without too much difficulty (Kholoshyn et al., 2020). Related to that, there is also a need for training new users in the technology, which can be expensive and timeconsuming. When training on new educational technology is not available, or as is often the case when it is available for faculty and staff but not for students, this can lead to lost time and users trying to figure out the technology for themselves, and it can also result in technical difficulties or not being able to take full advantage of what the technology offers (Yasmin et al., 2019). Another concern with online teaching is time management. In addition to learning the technology, online teaching involves a great deal of reading and writing because the main model of communication in an online course is text-based (Rahim, 2020). There is a lot of writing back and forth and reading the comments, reading emails, and writing emails, so teaching and learning online can be very time consuming and good time management skills are imperative. In addition, another concern about remote teaching

is attrition, that students will more easily drop out of an online class than a face-to-face class, and this concern is well founded because some research has shown that students are more likely to drop out of online courses than face-to-face courses (Markova et al., 2017).

CHALLENGES WITH ONLINE TEACHING

Research studies at the local, regional, and international levels have found that schools and colleges have faced certain challenges when transitioning to online teaching and implementing educational technologies. These challenges include a lack of funding or resources to keep the technology up-to-date and to build the infrastructure to effectively use the technology, and as discussed previously, a lack of funding and resources can occur on the student side as well (Gillett-Swan, 2017). In addition, insufficient training of both teachers and students in how to use technology effectively has been another challenge as well as the issue of end-user difficulties, which refers to the difficulties that both students and instructors have when using the technology. When teachers don't have sufficient technological skills. it will be difficult for them to assist their students with using the technology (Tan & Chen, 2021).

Inaccessibility is another challenge, and this refers not just to being unable to access the internet or not having the necessary computer hardware and software but also to temporary inaccessibility caused by things like power outages or losing access codes (Dong, 2020). Another important component of accessibility is that the online course must be fully accessible by students with disabilities. For example, a student who is hearing impaired may require captions for video lectures, or a student with a learning disability may need a screen reader or some other accommodation. Making your online course accessible to students with disabilities is not only a good practice, but it is also required by law (Anwar et al., 2020).

Technical difficulties present another challenge, and it's almost inevitable that in an online course, students or the instructor will at some point encounter technical difficulties (Rasheed et al., 2020). Sadly, another challenge faced by schools and colleges that have transitioned to online learning is hacking, which occurs when someone intrudes on an online course to steal

information or disrupt the session. Something called Zoom bombing, when someone enters a Zoom session in order to disrupt it, has been in the news recently. Finally, a transition to online learning can feel impersonal, and the removal of in-person and real-time interactions with their classmates can be difficult for some students (Gillett-Swan, 2017).

STRATEGIES TO ENHANCE STUDENTS' ENGAGEMENT

Research has shown that when instructors build rapport with students in their online courses, students are more engaged and more likely to be successful in and satisfied with the online course. Increased rapport adds to students' perception that the instructor is present, which is important for student engagement and satisfaction (Martin et al., 2018). There are several ways that faculty can build rapport with students in an online course. First, provide short videos of yourself for your students to view. These don't need to be very long, and you can use videos to introduce a new unit or a new concept. Throughout the course, the instructor can also use videos to respond to frequently asked questions, and it's also better if these videos were relatively brief and posted regularly throughout the course rather than just at the very beginning or the very end of the term (Bolliger & Martin, 2018).

Another strategy to build rapport with your students is to contact them via email on an individualized basis by sending an email to each student to their individual email address that addresses them by name. This is not an email blast to the whole class, but an email to individual students two weeks into the class and then a few weeks again after that, just to check-in and see how they are doing, if they have any questions, and if they understand the materials. As asynchronous online courses can seem impersonal, this adds a personal touch to an asynchronous online course (Alemu & Woldetsadik, 2020).

The third strategy is to provide timely, detailed, and student-specific feedback on assignments. This goes toward adding personalization to the online learning experience. Feedback that is specific to students' individual strengths and areas for improvement, and that is provided in a timely fashion, will not only be appreciated by the students and enhance the instructors' presence

in an online class but will help them to progress through the course at a good pace to improve their work based on the feedback (Aslan et al., 2019).

Even in an asynchronous online course, it is worth trying to find times when you can arrange for synchronous meetings, such as by offering regular synchronous office hours via Zoom or another video conference or an end of the term celebration hour to mark the end of the semester. Also, never underestimate the impact that an individual phone call can have to address students' questions or concerns. Finally, another way to build rapport with students is to be humorous occasionally in presenting course materials or in lectures when possible and appropriate to do so (Dumford & Miller, 2018).

Another way to enhance students' engagement in an online class is to structure the class to encourage students' interactions with the instructor and with other students. Research has shown that student interactions with other students, with the instructor, and with the course materials can enhance student learning of the subject matter and have the students feel more engaged in the course (Lee et al., 2019). These interactions can also keep students satisfied with their course and keep them thinking about the course materials. There are several ways to encourage student interaction in an online course. First, include assignments that enable students to work collaboratively, such as group projects. Another way is to use shared drives, such as Google Drive, to enable students to create documents, portfolios, or presentations collaboratively. In addition, requiring students to interact on discussion forums or blogs by posting initial content and questions and asking students to respond to the instructor's posts as well as to other student's comments, and blog posts and discussion board posts can also initiate interesting and interactive dialogues. In addition, when conducting a synchronous class session, you can ask students to deliberate in small groups. Zoom has a feature of breakout rooms that is useful to enable and to facilitate that small group discussion (Bolliger & Martin, 2018).

Some additional strategies to enhance engagement in the online courses might include using multiple forms of media and technology so that the instructor doesn't rely too heavily on just one form. For example, in addition to voice

threads or a voice-over PowerPoint presentation, consider also linking to YouTube videos, posting a video of yourself, and using discussion boards or blogs. Also, consider sharing your screen so that students can see the perspective of the instructor's screen on their own computer. This is useful when you are trying to do a demonstration on your screen, for example, about how a particular type of software works (Dunn & Kennedy, 2019).

Again, regularly reach out to students to check in with them and see if they have any questions or concerns in the course. It's important to be proactive about that, so don't wait for the students to come to you before you reach out to them. It can also be useful, depending on your course topic, to make connections between your course content and current events or something that is happening in popular culture. Studies have shown that students are more engaged and learn better when their instructors can make a connection between the course material and something students already have an independent interest in.

STRATEGIES TO ADDRESS CHALLENGES

Finally, there are some strategies that can help address some of the challenges that schools and colleges may run into when transitioning to online learning. These strategies include getting training in the educational technology that the instructors are using. This training might be offered by the educational institution or by the vendor of the technology (Nasrat et al., 2020). There are also often instructional videos for particular educational technologies that are available on YouTube or on the vendor's website. Learning how to use the technology can help you and your students get the most out of that technology for the learning experience. It can also help the instructor avoid technical difficulties or unexpected problems by anticipating common difficulties and testing the technology for problems (Shahmoradi et al., 2018). For example, it can be useful to do a test run of the technology before the class begins to see if you run into any problems. In addition, you can also speak to colleagues who have had previous experience with a particular type of technology to share their experiences and whether they encountered any problems with the technology so you can have an idea of what to expect. It is also important to know how you can contact the responsible technical

support services if you run into any problems with the technology so you will be able to get the problem addressed promptly.

In addition, good time management skills are essential to being successful in online teaching and learning both for instructors and for students. This is especially true for students in an asynchronous online course, where students work at their own pace through a variety of modules and are often given a range of days to complete their work (Neroni et al., 2019). It can be tempting to procrastinate in such situations, especially with other urgent matters competing for students' time. Studies have shown that students with better time management skills tend to perform better in their academics. But time management skills in an online course are essential for faculty as well because the method of communicating with the students are so often text based and that involves a lot of reading and writing, and when faculty have other pressing matters that are competing for their time, it can be tempting to put off an asynchronous online course. Practicing time management skills and having time management strategies that allow for extra time in your schedule to tend to your course preparation and online teaching is very important (Taylor et al., 2020).

Further, there are additional strategies for addressing challenges that may arise in the online course that were proposed through the literature. The instructor must be aware that not all students have reliable access to the internet. Even if they have sufficient access to complete their work for an online course and the course requirements, they may not have access to the technology at other times. Also, some students just prefer speaking with their instructor by phone, or some prefer on a synchronous videoconference, while others may prefer email. So, it's important for the instructor to be open to using methods for communicating with the students (Pozdnyakova & Pozdnyakov, 2017). The instructor also can help the students find resources that may be useful for them. This includes the use of open educational resources, which are licensed, internet-accessible resources that are free to use in the course, or it may also include helping low-income students who don't have internet access to locate organizations that provide free or low-cost internet. The teacher can also inform students about the availability

of access services for students with disabilities, which means working with the educational institution's disability access services to ensure that the online course is fully accessible for students with disabilities (Leontyeva, 2018). Finally, this might seem like a lot of work that will take a lot of time, and that is absolutely correct: Teaching online does take a lot of preparation and a lot of work. There is research showing that instructors of online courses spend more time on average in their teaching and their preparatory work than instructors of face-to-face courses, so it is essential to dedicate a lot of time to your online course. However, the time you invest in developing and teaching your online class can pay off when you are rewarded with highly engaged students who learn a lot from your course.

CONCLUSION

The present study shows that there are a large number of challenges facing elearning and that these challenges have become a reality due to the emergence of various crises that require educational institutions to adapt to elearning. This study reviewed many strategies that contribute to overcoming these challenges and to increasing students' engagement in the educational process. The current study recommends employing different strategies to overcome the challenges facing distance education and to adapt the different circumstances for the benefit of students. The current study also recommends increasing the level of knowledge and practice of both students and teachers with regard to employing different technologies in elearning and providing both with time management skills due to their importance in overcoming the challenges facing elearning.

REFERENCES

- Abbasy, M. B., & Quesada, E. V. (2017). Predictable influence of IoT (Internet of Things) in higher education. International Journal of Information and Education Technology, 7(12), 914–920. https://doi.org/10.18178/ijiet.2017.7.12.995
- Alemu, B. M., & Woldetsadik, D. A. (2020). Effect of teachers and students relationships on the academic engagement of students: A qualitative case study. Journal of Education, Society and Behavioural Science, 48–62. https://doi. org/10.9734/jesbs/2020/v33i1130271
- Alenezi, A. (2018). Barriers to participation in learning management systems in Saudi Arabian universities. Education Research International, 2018, Article 9085914. https://doi. org/10.1155/2018/9085914
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. Higher Education Studies, 10(3), 16–25. https://doi.org/10.5539/hes.v10n3p16
- Anshari, M., Almunawar, M. N., Shahrill, M., Wicaksono, D. K., & Huda, M. (2017). Smartphone usage in the classrooms: Learning aid or interference? Education and Information Technologies, 22(6), 3063–3079. https://doi.org/10.1007/ s10639-017-9572-7
- Anwar, M., Khan, A., & Sultan, K. (2020). The barriers and challenges faced by students in online education during Covid-19 pandemic in Pakistan. Gomal University Journal of Research, 30.
- Aslan, S., Alyuz, N., Tanriover, C., Mete, S. E., Okur, E., D'Mello, S. K., & Arslan Esme, A. (2019, May). Investigating the impact of a real-time, multimodal student engagement analytics technology in authentic classrooms. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (pp. 1–12). https://doi.org/10.1145/3290605.3300534
- Baskaran, C. (2018). Emerging E-Learning Technology (ELT) in Open Distance Learning (ODL): The contemporary issues in higher education context. In Library and Information Science in the Age of MOOCs (pp. 191–203). IGI Global. https://doi.org/10.4018/978-1-5225-5146-1.ch012
- Bolliger, D. U., & Martin, F. (2018). Instructor and student perceptions of online student engagement strategies. Distance Education, 39(4), 568–583. https://doi.org/10.1080/01587919. 2018.1520041
- Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. Asian Journal of Distance Education, 15(1), i–vi.
- Dong, J. (2020). Online learning and teaching experiences during the COVID-19 pandemic: A case study of Bangladeshi students receiving China's higher education. English Linguistics Research, 9(2), 37–45. https://doi.org/10.5430/elr. v9n2p37

- Duin, A. H., & Tham, J. (2020). The current state of analytics: Implications for learning management system (LMS) use in writing pedagogy. Computers and Composition, 55, 102544. https://doi.org/10.1016/j.compcom.2020.102544
- Dumford, A. D., & Miller, A. L. (2018). Online learning in higher education: Exploring advantages and disadvantages for engagement. Journal of Computing in Higher Education, 30(3), 452–465. https://doi.org/10.1007/s12528-018-9179-z
- Dunn, T. J., & Kennedy, M. (2019). Technology Enhanced Learning in higher education: Motivations, engagement, and academic achievement. Computers & Education, 137, 104–113. https://doi.org/10.1016/j.compedu.2019.04.004
- Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. Journal of Learning Design, 10(1), 20–30. https://doi.org/10.5204/jld. v9i3.293
- Hadullo, K., Oboko, R., & Omwenga, E. (2018). Factors affecting asynchronous e-learning quality in developing countries university settings. International Journal of Education and Development using ICT, 14(1), pp. 152–163.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educause Review, 27, 1–12.
- Kholoshyn, I., Bondarenko, O., Hanchuk, O., & Varfolomyeyeva, I. (2020). Cloud technologies as a tool of creating Earth Remote Sensing educational resources. CEUR Workshop Proceedings 2643 (2020), 474–486. https://arxiv.org/ abs/2007.10774
- Lee, J., Song, H. D., & Hong, A. J. (2019). Exploring factors and indicators for measuring students' sustainable engagement in e-learning. Sustainability, 11(4), 985. https://doi.org/10.3390/su11040985
- Leontyeva, I. A. (2018). Modern distance learning technologies in higher education: Introduction problems. Eurasia Journal of Mathematics, Science and Technology Education, 14(10), em1578. https://doi.org/10.29333/ejmste/92284
- Malik, M., & Fatima, G. (2017). E-learning: Students' perspectives about asynchronous and synchronous resources at higher education level. Bulletin of Education and Research, 39(2), 183–195.
- Markova, T., Glazkova, I., & Zaborova, E. (2017). Quality issues of online distance learning. Procedia—Social and Behavioral Sciences, 237, 685–691. https://doi.org/10.1016/j.sbspro.2017.02.043
- Martin, F., Wang, C., & Sadaf, A. (2018). Student perception of helpfulness of facilitation strategies that enhance instructor presence, connectedness, engagement, and learning in online courses. The Internet and Higher Education, 37, 52–65. https://doi.org/10.1016/j.iheduc.2018.01.003

- Nasrat, N., Khamosh, A., & Lavangnananda, K. (2020, November). Challenges and hurdles to e-learning implementation during COVID-19 outbreak: A case of Shaikh Zayed University. In 2020 International Conference on Informatics, Multimedia, Cyber and Information System (ICIMCIS) (pp. 242–246). IEEE. https://doi.org/10.1109/ICIMCIS51567.2020.9354313
- Neroni, J., Meijs, C., Gijselaers, H. J., Kirschner, P. A., & de Groot, R. H. (2019). Learning strategies and academic performance in distance education. Learning and Individual Differences, 73, 1–7. https://doi.org/10.1016/j.lindif.2019.04.007
- Pozdnyakova, O., & Pozdnyakov, A. (2017). Adult students' problems in distance learning. Procedia Engineering, 178, 243–248. https://doi.org/10.1016/j.proeng.2017.01.105
- Rahim, A. F. A. (2020). Guidelines for online assessment in emergency remote teaching during the COVID-19 pandemic. Education in Medicine Journal, 12(3).
- Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. Computers & Education, 144, 103701. https://doi. org/10.1016/j.compedu.2019.103701
- Ratheeswari, K. (2018). Information communication technology in education. Journal of Applied and Advanced Research, 3(1), 45–47. https://doi.org/10.21839/jaar.2018.v3iS1.169
- Shahmoradi, L., Changizi, V., Mehraeen, E., Bashiri, A., Jannat, B., & Hosseini, M. (2018). The challenges of E-learning system: Higher educational institutions perspective. Journal of Education and Health Promotion, 7(116). https://doi.org/10.4103/jehp.jehp_39_18
- Tan, D. Y., & Chen, J. M. (2021). Bringing physical physics classroom online—Challenges of online teaching in the new normal. The Physics Teacher, 59(6), 410. https://doi. org/10.1119/5.0028641
- Tarhini, A., Masa'deh, R., Al-Busaidi, K. A., Mohammed, A. B., & Maqableh, M. (2017). Factors influencing students' adoption of e-learning: a structural equation modeling approach. Journal of International Education in Business, 10(2). pp. 164–182. https://doi.org/10.1108/JIEB-09-2016-0032
- Taylor, D., Grant, J., Hamdy, H., Grant, L., Marei, H., & Venkatramana, M. (2020). Transformation to learning from a distance. MedEdPublish, 9(76). https://doi.org/10.15694/mep.2020.000076.1
- Toquero, C. M. (2021). Emergency remote education experiment amid COVID-19 pandemic. IJERI: International Journal of Educational Research and Innovation, (15), 162–176. https://doi.org/10.46661/ijeri.5113
- Trust, T., & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. Journal of Technology and Teacher Education, 28(2), 189–199.

- Venton, B. J., & Pompano, R. R. (2021). Strategies for enhancing remote student engagement through active learning. https://doi.org/10.1007/s00216-021-03159-0
- Yasmin, M., Naseem, F., & Masso, I. C. (2019). Teacher-directed learning to self-directed learning transition barriers in Pakistan. Studies in Educational Evaluation, 61, 34–40. https://doi.org/10.1016/j.stueduc.2019.02.003