Original Paper

Problems of Online Learning vs. Face to Face: Teacher Education Considerations

Julia Azih[1] & Michael F. Shaughnessy[1]

[1] Eastern New Mexico University, Portales, New Mexico

Abstract

The realm of online learning is now clearly established. However, there remain concerns about online instruction, particularly in some fields of endeavor. This paper reflects on some of the weaknesses of online learning with a focus on teacher education programs and training.

Online learning, whether via hybrid, totally online, or supplemented by Zoom or Microsoft Teams, is a major part of education. However, educational theorists and pedagogists have some major concerns as to the quality of this training, and this paper will elaborate on some of those concerns.

What is online learning?

Online learning is an innovative approach for delivering a well-designed, learner-centered, interactive, and facilitated learning environment to anyone, anyplace, anytime by utilizing the attributes and resources of various digital technologies along with other forms of learning materials suited for open, flexible, and distributed learning environments (Kahn, 2005, p. 3).

Online classes are available for students anywhere and anytime as long as they have access to the Internet and an appropriate electronic device. The development of Online learning has opened higher education to a broader range of the population, including, but are not limited to, (1) parents with childcare responsibilities; (2) students who live further from the institution; (3) students working full-time; (4) students with disabilities; (5) and "urban students who find it easier to time-shift rather than space-shift" (Renes, 2015, p. 348).

Difference between Online and Face to Face (F2F) learning

The difference between online learning and face-to-face learning lies in relation to the primary sources of information and the evaluation and quality of learning. In face-to-face learning settings, students are evaluated exclusively by instructors. The instructors represent the primary source of information, and the quality of learning is strongly dependent on them. However, in online learning settings, students will access information from various documents uploaded onto the platforms, and evaluation takes place using different tools (Gherhes et al., 2021). The quality of the online learning experience depends strongly on both the instructors' level of digital training and their teaching style and a well-thought-through syllabus, assessment and evaluation plan, and continuous, timely feedback for the students to ensure mastery of the content taught.

Student's main issues in Online Learning

The three main issues for students participating in online learning settings include using technology, completing group work, and receiving timely feedback and communication from faculty (Mathera & Sarkans, 2018). Other problems include the lack of interaction with peers and practical engagement, especially for career and technical education majors or students who train for the medical field.

Technology/ Connectivity

While online learning is often described as more flexible for students who have commitments outside of education, Gherhes et al. (2021) point out that there are still inequities in accessing the technology or learning the needed computer skills to participate in an online course. Students may also lack the

physical space in their homes to set up adequate study surroundings (Gherhes et al., 2021). In addition, students must have a reliable Internet connection, the right technology, and a working device to access the online learning platform. Several studies confirm that students had issues accessing course information, including technical challenges in accessing the weekly modules or completing required tests which led to frustration and dissatisfaction (Mathera & Sarkans, 2018).

Others mentioned that "Internet connectivity issues also adversely impacted learning through online modalities" (Mukhtar et al., 2020, p. 30). In addition, students must know how to establish a reliable internet connection and have Help Desk phone numbers available in case software issues with the learning platforms arise (Foo et al., 2021).

Group activities

Group projects are common teaching strategies that promote collaboration, critical thinking, and problem-solving skills. This strategy can be used in face-to-face and online learning settings to enhance student learning outcomes. However, using this teaching strategy in online learning settings comes with "unique challenges and frustration" for students and instructors. Common challenges are that students had "difficulties communicating and collaborating with group members, unequal distribution of work, coordinating meeting times, and group members' disagreements. In addition, online learners also mentioned that group work was difficult to conduct because they never met their group members in person" (Mathera & Sarkans, 2018).

Lack of timely feedback

Another challenge in online learning settings is the lack of timely feedback. Students reported that the faculty seemed disengaged and participated minimally when giving students feedback about their submitted assignments. Participants voiced their dissatisfaction with the faculty's lack of communication and feedback. In face-to-face settings, instructors present course materials directly to students. Students can voice if they don't understand a topic or get clarification on assignments through immediate communication.

An Online course does not produce immediate feedback for students. Questions regarding assignments are often submitted through emails, video conferences must be scheduled, and phone calls. Students often feel that getting a response takes a prolonged period (Mathera & Sarkans, 2018) Many students experience frustration and exasperation in this process.

Lack of social interaction

Many students perceived a lack of social interaction as the most severe barrier to enrolling in an online learning course (Muilenburg & Berge, 2005). Compared to face-to-face settings, interaction with faculty and peers shifts primarily to text-based interaction through discussion boards, emails, and chat rooms. Even though this type of interaction provides the student with additional processing time to familiarize themselves with the topic and provide an informed response, students may feel it is impersonal with few opportunities for social interaction (Mathera & Sarkans, 2018).

In a recent study, "19.2% of the respondents believed that the "lack of interaction" was the main drawback of online learning, supported by those who stated that they missed interacting with their peers (12.7%)" (Gherhes et al., 2021, p. 8). Social interaction with peers provides the students with a connection and the feeling of being part of a learning community. In addition, online students often feel isolated and lonely. Therefore, instructors must create a sense of social presence that can enhance interactions between students and instructors to make the online learning environment more fulfilling (Esani, 2010).

Research showed that some students familiar with face-to-face courses show negative emotions such as fear, anger, or helplessness when they first enroll in an online course. Other students, especially introverts, who are shy and lack confidence, prefer online learning as it provides them with more privacy and less burden of public speaking.

Other groups of students developed a feeling of belonging and connection through their online courses. They used these connections as a resource for knowledge and development in various fields of study

(Gherhes et al., 2021).

Lack of practical application

A lack of practical application is especially complicated for students undertaking technical studies, who need the practical application to develop adequate practical knowledge related to their field of studies. For example, in one study by Mukhtar et al. (2020), students and faculty members complained that they could not teach and learn the practical and clinical work needed for the students to succeed in the medical field (Mukhtar et al., 2020). One author points out that "online learning cannot be a long-term solution for all fields of study. Career and technical education studies often require face-to-face interaction in order to provide adequate practical knowledge" (Gherhes et al., 2021, p. 12).

Distraction

In several studies, students reported limited attention and other distractions posed by the Internet that made them lose focus and miss deadlines for assignments. For example, some instructors reported that students misbehaved and tried to access online resources during assessments (Gherhes et al., 2021). Others reported that students were more prone to distractions from surrounding persons or events, leading to reduced student engagement, communication, and poor motivation (Foo et al., 2021).

Instructors' main issues with online learning courses

Just like there are disadvantages for students, instructors have several difficulties teaching online courses, including timely feedback, attendance, long-term physical problems, and students at risk of failing or with special needs.

Feedback

Early we discussed that students complain about late feedback on questions or assignments. Instructors have reported similar difficulties. Due to the lack of immediate feedback, instructors cannot assess if students have understood and mastered the material during online lectures. This regular two-way feedback between instructor and students helps enhance self-efficacy and motivation and provides emotional and social support, essential ingredients for effective learning (Mukhtar et al., 2020). When an instructor communicates feedback, it is often 100% in writing, via email, or formal announcements on an online content management system such as Blackboard. Therefore, there is always a lag time before the online learner receives and reads the message. Many students also have other commitments, leaving them with assignments to work on over the weekends or at night when the instructor is unavailable for immediate feedback. Students should be taught good study skills, reviewing course content early in the week to have enough time to reach out with questions and receive the answers before a deadline occurs.

Attendance / Course Schedule

Attendance in online environments is very different compared to face-to-face settings. Students can only show attendance by participating in classroom discussions. These so-called "discussion boards" are used to increase the interaction between students. These discussions are diverse as all students get to share their opinion on the topic. There is no data on the nature and effectiveness of online discussion forums, but most participants indicated that discussions were their primary method of interaction in the course (Mathera & Sarkans, 2018). With the discussion board being the only indication if a student is "attending" the course, instructors have no indication of how much time students spend weekly on the course material and how deep their understanding is. Therefore, assessment techniques become more important so instructors can measure each student's mastery level.

An online course requires more discipline from both students and instructors. Students must show self-discipline to progress through the scheduled course content independently but within the required time frame. Traditionally, the instructor imposes this on the student through the course schedule made available in the face-to-face class. In an online learning environment, the instructor must refer to the course schedule by making it available in the course syllabus and posting announcements and reminders weekly to keep students on track (Arias et al., 2018).

Physical problems

Participating in online learning leaves all participants with the task of setting up their studying area at home. Instructors and students that are not educated in ergonomics may develop adverse physical problems over time. These problems could include sight problems (due to long periods in front of the screen), back pain, and other health issues related to a lack of open-space activities (Gherhes et al., 2021).

Students at risk of failing and Students with special needs

The research by Xu and Jaggers (2013) indicated that administrations are reluctant to offer online courses to learners with insufficient grades who are at risk of failing their programs. This reluctance is attributed to a lack of sufficient study skills on the other side of the students. Students must develop these study skills to succeed in online learning settings as they have to rely on their own time management, study skills, and research with little to no help from the outside. Meanwhile, Flynn (2016) argues that with "the essential learning supports, online tools and psychosocial understanding of the unique characteristics and academic requirements of at-risk students, they can succeed in online courses" (Flynn, 2016, p. 130).

Research shows that students with special needs use the Internet and online learning environments well below the rest of the population. These students encounter specific barriers, such as the use of the Internet and the complexity of learning platforms that seem inherently unfriendly to many kinds of disabilities. (Mathera & Sarkans, 2018)

Lack of visual cues about student performance

When teaching online, instructors must rely on the data they receive from the assessment and evaluation plan that is in place. They have little to no visual cues on how students study and understand the learning material. The lectures may be recorded in a fully online course, and the instructor has no way of verifying if the student has accessed the learning material. In hybrid formats, the students may turn off their cameras and only participate in discussions with their voices, leaving the instructor with no visual cues of their understanding.

Technical difficulties may also alter the teacher-class discussion. For example, the instructor does not know the students' prior knowledge of the topic and their critical thinking and problem-solving ability within an online course without a pre-assessment.

The Internet and other LMS (Learning Management Systems) are not 100 percent reliable and dependable. This must be taken into account and considered.

This, however, collides with the idea that online courses require more time in their development and design stage. All aspects of the course must be carefully organized with explicit and detailed instructions. As a result, there is often little room to change the flow of units, assessments, and instructions. In addition, "constant messages from learners can be time-consuming and labor-intensive to review and respond to. In addition to corresponding with online learners, grading exams and papers and other responsibilities, such as other courses, are enough to overwhelm an instructor" (Esani, 2010).

Instructor responsibilities

Instructors must keep students engaged within the learning environment by being content experts who guide the students through their knowledge acquisition and facilitating the learning process. Instructors will benefit from training opportunities provided by their faculty that will focus on the technical components of online teaching, combined with compelling content development and training that will build skills in managing the unique social interaction component of an online classroom environment. An instructor should also consider the materials posted in the Learning Management System. Finally, it is helpful to use a combination of literature, activities, videos, and other forms of interactive lessons to keep students' attention and engaged in the learning experience (Mathera & Sarkans, 2018).

Summary and Conclusions

This paper has attempted to cursorily review some of the main issues regarding the use of online education in one particular program- teacher education. Indeed there are different challenges in preparing teachers for elementary school, middle school, and high school, and also preparing instruction for students with special needs.

References

Arias, J., Swinton, J., & Anderson, K. (2018). Online vs. face-to-face: A comparison of student outcomes with random assignment. *E-Journal of Business Education & Scholarship of Teaching*, *12*(2). http://www.ejbest.org

Esani, M. (2010). Moving from face-to-face to online teaching. *Clinical Laboratory Science*, *23*(3). http://clsjournal.ascls.org/content/ascls/23/3/187.full.pdf

Flynn, E. (2016). Should at-risk students take online courses? *College Student Journal*, *50*(1), 130-134(5). http://www.ingentaconnect.com/content/prin/csj

Foo, C., Cheung, B., & Chu, K. (2021). A comparative study regarding distance learning and the conventional face-to-face approach conducted problem-based learning tutorial during the COVID-19 pandemic. *BMC Medical Education*, *21*, 141. https://doi.org/10.1186/s12909-021-02575-1

Gherhes, V., Stoian, C. E., Farcasiu, M. A., & Stanici, M. (2021). E-Learning vs. face-to-face learning: Analyzing students' preferences and behaviors. *Sustainability*, *13*, 4381. https://doi.org/10.3390/su1308438

Khan, B. (2005). Managing E-learning strategies: Design, delivery, implementation, and evaluation. *Igi Global*: Hershey.

Mathera, M., & Sarkans, A. (2018). Student perceptions of online and face-to-face learning. *International Journal of Curriculum and Instruction*, *10*(2). www.ijci.wcci-international.org

Muilenburg, L., & Berge, Z. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, *26*(1), 29-48. DOI: 10.1080/01587910500081269

Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, limitations and recommendations for online learning during COVID-19 pandemic era. *Pak J Med Sci May-2020 Vol. 36*. https://doi.org/10.12669/pjms.36.COVID19-S4.2785

Renes, S. L. (2015). Increasing access to higher education through e-learning. In B. Gradinarova (Ed.), *E-learning – Instructional design, organizational strategy* and *management* (pp. 347-361). doi:10.57772/60906

Xu, D., & Jaggars, S. S. (2013). Examining the effectiveness of online learning within a community college system: An Instrumental variable approach (No. 56). New York, NY: Teachers College, Columbia University. http://ccrc.tc.columbia.edu/media/k2/attachments/examiningeffectiveness-of -online-learning.pdf