

CASE STUDY

Instructional Strategies for Online Teaching in COVID-19 Pandemic

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Peer Review

The peer review history for this article is available at <https://publons.com/publon/10.1002/hbe2.218>.

Abstract

Educational institutes have closed worldwide due to the outbreak of COVID-19. The research paper explores different instructional strategies. These instructional strategies can help in implementing online teaching in higher education. The case study develops various methods for online teaching without compromising student learning. These methods will help in designing successful online study sessions. The study formulated different notions for online education in developing countries. It includes maintaining slow voice and practicing vocal functions by teachers. Furthermore, sharing resources before the class will help in creating interactive online classes. These strategies play fundamental role in enhancing student learning. The study suggested that Higher Education Commission should make collaborations with telecommunication industries. This will help in overcoming Internet-related issues. There are multiple factors that help in enhancing remote learning. These factors include getting feedback from students, offering flexible teaching and assessment policies. Recording online lectures and getting support from teaching assistants are also vital features. These instructional strategies will serve as an excellent tool in running online classes.

KEYWORDS

Covid-19, higher education, instructional strategies, online teaching, pandemic

1 | INTRODUCTION

Coronavirus termed as COVID-19 was declared as pandemic by WHO officially on March 12, 2020 (WHO, 2020). COVID-19 is a severe acute respiratory syndrome and is a type of virus. Educational institutes closures occurred due to this pandemic. It has estimated that 107 countries implemented educational institutes closures. It is roughly said to be affecting 862 million people around the globe. This is approximately calculated as half of the world student population (Viner et al., 2020). Moreover, 29 countries closed their educational institutes a week before the official announcement (UNESCO, 2020a,b). Educational institutes closures were immediately considered after this pandemic. In past, it was assumed that minimizing social contacts can reduce influenza outbreaks (Jackson, Vynnycky, & Mangtani, 2016).

COVID-19 pandemic has also affected higher education in Pakistan. Pakistani universities are moving from traditional face-to-face education to remote education. Most of the higher education institutes exclusively universities are moving toward online education. Students are getting education online by sitting in front of their computer screens at their home. After this pandemic outburst, universities are being closed. UNESCO reported that around 61 countries are enforcing closures of higher educational institutes. It includes Africa, Asia, Europe, Middle East and America (UNESCO, 2020a,b). This article explores the impact of online higher education in developing countries. Furthermore, it suggests methods, which will be beneficial in remote learning. The study reveals 10 instructional strategies for successful online teaching in similar pandemics.

2 | BACKGROUND

Currently, there are 177 universities and other higher educational institutes in Pakistan. Out of these 177 universities, 58% belong to public sector, whereas remaining 42% comes under private sector. (Khattak, 2020). All these higher educational institutes are bound to follow the laws of Higher Education Commission (HEC). On March 31, 2020, Pakistan's education authority, HEC, advised all universities to start online classes. This was considered after the spread of COVID-19 (Xinhua, 2020). This step will help in avoiding educational loss for students. HEC urged universities to train their staff about online teaching through internet. Also, HEC advised to provide staff with all necessary equipment required. This step will help to avoid further compromising of student learning. Furthermore, HEC has announced a databank for online courses. All universities will have access to this databank (Xinhua, 2020). Besides this, World Bank is taking part in working with education ministries of several countries. World Bank is trying to help them cope up with eLearning opportunities. These eLearning resources will help students to do online learning in pandemic situation (The World Bank, 2020).

Different universities in Pakistan have already started remote learning from March 2020. Punjab University has also started remote learning for students. Punjab University is providing students with course materials and recorded lectures. These are being sent through emails or uploading it on the associated software. This is helping university to avoid compromising education in pandemic situation (The News, 2020). Besides these, University of Engineering & Technology (UET), Bahauddin Zakariya University (BZU), and Lahore University of Management Sciences (LUMS) are also providing remote learning for students. HEC urge LUMS and UET to help other nontech universities in their online setups. This will help other universities in improving their capacity and online support.

For universities, it is a challenging task to move all face-to-face courses to remote learning. In other words, transforming to remote learning in such a short period of time is difficult. Especially, in a country like Pakistan, remote learning is a massive shift. As in developing countries, technology advancements are not practiced much. Lesson plan, teaching materials (both audio and video), relevant software installation and technology support all are mandatory steps for running an online course. HEC is helping higher education institutes in running online teaching courses. HEC is providing capacity building programs and strategies (Academia, 2020). Still, faculty members and universities are facing serious challenges.

As discussed above various challenges are faced by faculty members. Previous research study proves that students are willing to accept the change. That change which refers to transformation of traditional face-to-face learning to new learning methods (Fageeh, 2011). Moreover, Pakistani students shows positive attitude toward eLearning at higher educational level (Rafiq, Hussain, & Abbas, 2020). But they do not have enough resources to get online education. Furthermore, literature proves that lack of IT infrastructure is major issue in remote learning (Rafiq et al., 2020). Other significant issues reported are insufficient IT knowledge of faculty members and deficiency of electronic devices (Rafiq et al., 2020).

Also, education access was already a big issue in countries like Pakistan. Report reveals that in Pakistan, approximately 50 million students enrolled are at risk due to COVID-19 (Malik, 2020). Students are unable to do remote learning because there are poor Internet services. Especially provinces like Baluchistan, Khyber Pakhtunkhwa, and Gilgit-Baltistan have poor Internet coverage. Furthermore, Pakistani universities have Internet and equipment facilities available on campuses. However, it is difficult for universities to provide student with these resources at their residence. Not only Internet access, but recent report states that availability of broadband services is also difficult. In Pakistan, students cannot afford these facilities (Malik, 2020).

Based on the above discussion, it can be argued here that both students and faculty members are facing issues. It is a difficult task to do online teaching and learning for both students and teachers in Pakistan. This study will provide remedies to the issues discussed above. Moreover, this case study will devise 10 effective instructional strategies. These strategies will help to cope up with issues of remote learning in Pakistan. This study will explore methods for online teaching in this pandemic situation.

3 | INSTRUCTIONAL STRATEGIES

This section discusses different instructional strategies. These strategies will help in transforming traditional one-on-one learning to remote learning.

3.1 | Voice and pitch management

One of the prominent features in online teaching is the voice of the teacher. Literature shows that effective communication between students and teachers is very important. Keeping voice pitch high and practicing vocal functioning like pauses, intensity variation is essential. In traditional class teaching, body language, eye contact, and physical gestures are significant teaching tools. However, in online teaching, teachers should focus more on their voice and vocal functions. A recent study suggests that speaking gently is beneficial for students. It helps students in writing essential lecture points (Bao, 2020). It can be suggested here that universities should give training to their faculty members. Teachers should know about importance of maintaining slow voice and practicing vocal functions. This will ensure effective learning for students during online teaching.

3.2 | Formulating teaching strategies to enhance online class interactions

Greater interactivity in online course will enhance the overall online class success rate. Literature depicts that more student and teacher discussion can result in higher interactivity (Townsend et al., 2002). Online class participation can be one way of enhancing student involvement in lecture. Moreover, discussing case studies and asking questions can

result in higher student involvement (Smith & Diaz, 2004). Thus, universities should arrange meetings with their colleagues. Through these meetings, devise them methods to develop more interactive online classes. Practicing these methods will encourage student presence and improve learning abilities. Teachers should prepare lectures beforehand and share case studies and questions with students.

3.3 | Poverty and infrastructural neglected areas

In Pakistan, many university students come from backward areas. These areas are facing issues of poverty and lack of infrastructural development. Source proves that few students do not have basic equipment needed for online classes. Especially, students belonging to interior Sindh or Baluchistan areas do not have their own laptops (Waqar, 2020). Moreover, lack of high-speed Internet in their areas is a major issue (Waqar, 2020). One of the teachers working in a university speaks out that approximately 33% of class is unable to attend online sessions due to these issues (Waqar, 2020). Therefore, universities should offer such schemes to cope up with pandemic situations. Universities can offer borrowing laptops or tabs from university library. These laptops must be given back to the library after this pandemic crisis. Moreover, HEC should make collaborations with telecommunication industries. This collaboration will help in assuring Internet connectivity in these areas. These steps will ensure that students in these areas are not lacking behind.

3.4 | Developing student learning abilities in online classes

Online classes are completely different from the traditional in-class lectures. In traditional in-class lecture, teacher feels more control over student behavior. To deal with this concern, study shows that teacher should devise different activities. Such activities which can enhance student learning skills in online classes (Bao, 2020). Moreover, teachers should ask challenging questions from students during online classes (Smith & Diaz, 2004). These practices will help in establishing better learning abilities for students. Moreover, these approaches will ensure that students are more focused in classes. Besides these, getting feedback from students about these online classes can enhance the capacity of online classes.

3.5 | Teaching unit—think critically, practically, and creatively for online study success

Teaching staff should devise learning material, which is more creative. In other words, student should be offered with more innovative and practical work. Study shows that development of critically analyzing learning materials is difficult in traditional teaching method. Furthermore, thinking out of the box abilities is difficult task in traditional class settings (Persky & Pollack, 2010). However, in online classes,

staff can assign individuals with real world case study. Then, they can ask students to give their ideas and opinions. This will help in developing student abilities and enhancing online study success rate.

3.6 | Flexible teaching and assessment policies

Due to lack of high-speed Internet connectivity in some areas of Pakistan, students are unable to run with the pace of online lectures. Students are unable to perform assignment submissions and even accessing lecture recording. One of such examples is quoted in Baleem, Pakistan village. In this village, a student only gets access to lecture recording through his uncle. His uncle lives at 2-hr drive where he downloads lecture and then bring it to him every week (Waqar, 2020). To deal with such issues, teacher should show flexibility and give extra time to students. This will help students in easy submissions of assessments. Universities should train teacher not to put pressure on students in pandemic state. Instead, teachers should give students full support. This support can be in accessing online lectures and submitting assignments late.

3.7 | Backup plans for pandemic situations

Due to COVID-19, all classes have shifted toward online mode. Various problems which can occur are systemic and technical issues. Institution do not have appropriate resources and equipment required for conducting online classes. All of these are significant problems in running online classes, for example, overloading of server, lack of computer devices, and unable to perform software installations. To cope up with these issues, institutions must be ready at all times. These kinds of pandemic situations can occur anytime. Moreover, institute should have a backup plans like Plan B or Plan C to resolve these issues without causing any learning delays for students.

3.8 | Transforming a large-class lecture course to a smaller modules in online classes

A big class lecture can be divided into smaller modules or discussions to ensure concentration. Teaching staff should prepare online classes materials of less than 30 min. This can be done by splitting a big single task into multiple small tasks (Bao, 2020). This will help student to remain attentive and focused during online classes. Moreover, this strategy will help in improving student learning abilities in online classes.

3.9 | Recording online lectures and providing self-learning material

Prior to the online session time, teaching support staff should send email. This email should contain all preclass specific reading

material. Teacher can ask students to submit a short brief explanation of what they understood after reading the material during online session. This will help in improving online class discussion. Additionally, student will take part in answering questions if they have read the material already. Furthermore, students should be provided with online class recording. This recording will be beneficial for students who missed or did not understand any part of the lecture.

3.10 | Allocating teaching assistants

In Pakistani universities, teachers are not technically trained to run online classes smoothly (Waqar, 2020). Furthermore, online classes require much greater involvement of technical knowledge than in-class study. Therefore, universities should seek help from teacher assistants to support the mainstream teachers. These teacher assistants can ensure running of online sessions successfully. Meetings should be held before starting online sessions and availability of teacher assistants along with the teacher should be confirmed beforehand. This will assist in managing online lectures effectively. Besides this, teachers should talk to teaching assistants before class about which resources should be shared during the class. Also, they should discuss matters like how to manage question answer sessions.

4 | CONCLUSION

1. This article established various instructional strategies for online learning. These instructional strategies can be practiced by higher educational institutes. These approaches will facilitate in delivering online education effectively. The case study was developed through analysis of Pakistani universities online education. First, teachers should maintain slow voice speech and practice vocal functions. Second, teachers should develop interactive online classes and share class materials. Third, HEC should make collaborations with telecommunication industries to overcome Internet-related issues. Fourth and fifth, teachers should enhance students learning abilities and get their feedback. Sixth, teachers should think more critically, practically, and creatively. Seventh, teachers should offer flexible teaching and assessment policies. Other includes setting up backup plans, transforming a large-class lecture course to a smaller modules, recording online lectures, and allocating teaching assistants. Moreover, this article is a tool to help higher educational institutes to run online classes smoothly. This study particularly focuses on developing countries. It helps developing countries in implementing and preparing strategies for remote learning. This study can help in a successful online teaching migration during outbreaks like COVID-19.

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How to cite this article: Mahmood S. Instructional Strategies for Online Teaching in COVID-19 Pandemic. *Hum Behav & Emerg Tech.* 2020;1–5. <https://doi.org/10.1002/hbe2.218>