



Virtual Flipped Classroom: The Ultimate Blend Of Classic Lecture With More Self-Directed Learning During The Covid Pandemic

Prof. Hemant Lata Sharma Professor, Department of Education, Maharshi Dayanand University, Rohtak, India piscean_hemant@yahoo.com

Mansi Chowdhry Senior Research Fellow, Department of Education, Maharshi Dayanand University, Rohtak, India mansichowdhry86@gmail.com

Abstract

The COVID-19 pandemic has been the single largest source to ever affect the education systems, harming over 1.6 billion teachers - learners and affecting every country globally. Closing schools, educational facilities, and other learning spaces have had a massive effect on nearly all of the world's students. The changes are everywhere in our lives now. Distancing between students and regulating their movement in the classroom has drastically altered how they learn. This circumstance necessitates lecturers and students to adopt new learning methods, such as online learning (e-learning). The study aims to create a workable framework for implementing Blended Learning using best practices and the Virtual flipped classroom. Flipped classroom implementation begins with worksheets, PDFs, e-lectures, and class projects delivered in the Learning Management System (LMS) room and led by video tutorials. Virtual face-to-face interactions for discussion and feedback on the subject studied and collaborative evaluation activities are carried out after asynchronous content delivery. The covid pandemic has already opened up a plethora of digital learning options for learners. This article aims at providing a simple framework for guiding teachers and learners to continue with this new e-learning era.

Keywords: Covid, Blended Learning, Virtual Flipped Classroom, Implementation, LMS.

Introduction

Wuhan, a central Chinese city, had recently become home to a mystery ailment detected there in December 2019. By late January 2020, it was clear that this was a unique virus spreading Covid disease that was significantly more serious than initially imagined. To halt the virus' spread, the Govt. of China imposed a total lockdown on Wuhan; even so, the virus swiftly escaped their grasp and spread to practically every country. Between February and April 2020, the pandemic hit numerous developed countries like the USA, UK, Italy, and as the virus spread, the number of infections and deaths increased rapidly (John Hopkins

University & Medicine, 2020). The pandemic appeared to be affecting underdeveloped nations like India more than the developed world. The government of India imposed an absolute lockdown on the citizens after an increase in infection and death rates. The government has been trying to suppress the virus since late March 2020.

The urgent need to reconsider pedagogical practices

Because of the COVID-19 pandemic, students, teachers, and other educators worldwide have been unable to access schooling because schools and other educational institutions have been closed to prevent the spread of disease. Quality education can now be given to students in ways that haven't previously been used. Despite significant obstacles, digital learning, distance, and online teaching have become an inexhaustible source of knowledge, which, while better late than never, arrived on the global stage far too late to stave off the worst consequences of this unpredictable worldwide epidemic.

The learners' and educators' experience is likely to be very different if they are learning online instead of in a traditional face-to-face setting. Many teachers and educators in the educational system are forced to use platforms that they are unaware of. Schools and universities had significantly benefited from e-learning tools during this outbreak because they could help students learn even when they had to remain closed for safety (Subedi et al., 2020). Staff and students must be adequately trained and supported as they adapt to the new changes. Online learning doesn't follow a one-size-fits-all method. Students have different interests and desires. A single approach to online education will not work for everyone, so it's essential to tailor it to the audience's unique needs. As schools are closed to fight the international outbreak, the unanticipated effects have spread to students, parents, and educators across the globe. Blended learning is becoming the new normal, as many schools worldwide are switching things up to combat COVID-19. A blend of traditional classroom instruction with online education can help the class feel more interactive while keeping students engaged and supported by their teacher. Blended learning combines the benefits of classroom learning and digital learning to give students the best learning experience possible. Face-to-face teaching methods, such as lectures and group work, will be combined with online learning for students to access from home.

"India is better prepared than most other countries to integrate information and communications technology (ICT) more effectively and adopt blended learning. Already vast amounts of digital educational resources, such as the Consortium for Educational Communication's **undergraduate e-courses**, INFLIBNET's **e-PGPathshala**, Swayam's **MOOCs** and alike are available to be used by teachers and students. Students can use whatever technology they need to succeed, which is also offered to all students", University World News, 2020.

Blending it the right way: The Flipped Classroom

It's not just a random combination of the face-to-face and the online; instead, it's a well-thought-out strategy of meaningful activities done in both modes. One should focus on learning outcomes and learner-centered instruction. The NEP 2020 is calling for the implementation of blended learning, as students are increasingly engaging with digital technology, and the use of technology in education is growing at all levels of schooling and higher education. The NEP-2020 is emphatic about the importance of face-to-face learning in learning and teaching, in which digital engagement will be valued alongside more traditional methods. Each different subject has its distinct learning requirements.

Most students in today's education system don't receive effective one-size-fits-all learning models, and Covid-19 has helped schools improve their education systems with smarter EdTech. The role of education has been proven to be much more important than initially expected and requires a dynamic approach rather than adhering to outdated practices. Additionally, our society has moved into the digital age with young people who are comfortable with technology and have grown up with easy access to digital content. We can experiment with new ways of connecting with and engaging students who might have otherwise rejected traditional teaching methods by leveraging EdTech tools. This type of Flipped Classroom learning has become quite popular during the epidemic.

Online learning helps children learn through exciting and engaging experiences. Whether it is being used alone or with a hybrid approach, it can bring education to life. A Virtual Flipped Classroom means students will complete assigned tasks and learn from learning materials ahead of the class, so they can participate in independent and student-led thinking rather than being forced to listen to the teacher all the time. The teacher can, for example, prepare a math quiz that students can take inside the LMS (Learning Management System), upload their results, and make them available to use during the lesson. Thus, lesson time is designated as a time to work in groups and share ideas, freeing up time for individual consultations and asking teachers about problems they've encountered (Jesus et al., 2021). A sound student-centered system teaches them to be critical thinkers by giving them responsibility and a chance to reflect on what they've learned.

Implementation of Virtual Flipped Classroom Model

When it comes to implementing the Virtual Flipped Classroom model (entirely virtual in case of the covid situation), here are some steps to be kept in mind after carefully surveying the various LMS available and choosing the best as per one's need :

1. Developing high-quality e-lectures: The first task is to prepare high-quality video lectures using recording software like Screencast-O-Matic, Camtasia, Camstudio, etc. The video lectures can be designed using different software and can be uploaded on

an LMS-type platform. For better attention of students, the videos shouldn't be too long, ideally 5-10 minutes, and in exceptional cases 12-15 minutes. However, more direct contact with students can be made using video conferences on platforms like Google Meet, Zoom, etc.

2. Development of e-text: When creating reading, the teacher must consider that their students will be reading without the teacher's assistance. Therefore, the teacher should create texts accessible to readers in the form of PDF, word files, or any other high-quality text material. Additionally, they must pay close attention to how they present information to ensure that it is easy to understand. They must also design the content in such a way that it engages students. It is best to break the information into parts so that the reader can go through the material in an organized fashion without getting lost in the text.
3. Prepare a pool of questions: It is recommended to create a pool of subject-related assessment questions on the LMS being used. Thus, students can access the evaluation many times, and this activity will allow them to measure their understanding, make sure they have understood the material, and better retain the knowledge.
4. Preparing the lesson on the LMS platform: The LMS Platforms like Moodle, Myclass, Edmodo, Google Classroom, Nearpod, etc., offer an interactive learning experience that enables students to practice new skills using digital learning tools. Here, one should use interactive web-based collaborative assessment tools like Kahoot, Drawp, Spiral, Twitch, Piazza, etc. One of the critical elements of the interactive learning process is allowing students to practice using interactive, assessment-based learning activities while realistically applying their knowledge. They're also convenient in case of busy schedules. These platforms also serve as a record-keeping system that provides teachers with information about the students' progress, enabling them to identify who in their class has not been actively participating in the lesson's design and then take steps to connect with those students.
5. Establishing feedback and discussion forums: Last but not least, the teacher should schedule individual or group feedback and discussion sessions. Here one can make discussions about the lessons, texts, can take students' assignments and presentations, and provide real-time feedback.

Online learning programs are an excellent resource for busy students or parents who have difficulty getting to class each day. Using platforms that let students talk to their teachers and classmates any time they take a quiz or have a question about a lesson, even replicating the social interaction benefits of a traditional classroom setting, can increase their educational results (Khan, M., & Abdou, B. O., 2021). This element connects students to their teacher, giving them the independence to learn at their own pace.

Conclusion

With the cases of Covid still showing up, it is unclear until when we will have to deal with its consequences, especially in the education sector. This article suggests Virtual Flipped Classroom Model as an alternative and feasible solution for the education sector to continue imparting quality education to the masses. It has already been recommended in previous studies that if appropriately implemented, the Flipped Classroom model offers students the chance to boost their confidence in the content and academic engagement as well as getting all users to learn in independent learning (Castedo et al., 2019),(Sharma & Chowdhry,2018). When students study using a flipped model, they're able to do more independent work, increasing their learning and, ultimately, confidence (EducationWeek, 2020). Also, it has been shown from studies that with the advantage of boosting students' interest, the help of instructors from active learning, and more, Flipped Classroom is the preferred learning environment to deliver theoretical and practical knowledge (Long et al., 2016)

To encourage students to follow along with lectures and participate in class, it is recommended that teachers find ways to motivate students to pay attention and be well-prepared before class. To build support for the implementation of this program (i.e., virtual flipped classroom), future research should be done to obtain students' and teachers' perceptions of the flipped classroom, establish more data on learning outcomes, and build teachers' capacity to design better courses.

References

- Castedo, R., L'opez, L. M., Chiquito, M., Navarro, J., Cabrera, J. D., & Ortega, M. F. (2019). Flipped classroom-comparative case study in engineering higher education. *Computer Applications in Engineering Education*, 27(1), 206–216. <https://doi.org/10.1002/cae.22069>
- John Hopkins University & Medicine. (May 28, 2020). COVID-19 dashboard by the center for systems science and engineering (CSSE). Retrieved 28 May, 2020, from <https://coronavirus.jhu.edu/map.html>.
- J. Vilchez-Sandoval, D. Llulluy-Nunez and J. Lara-Herrera, "Work in Progress: Flipped classroom as a pedagogical model in virtual education in networking courses with the Moodle Learning Management System against COVID 19," 2021 IEEE World Conference on Engineering Education (EDUNINE), 2021, pp. 1-3, doi: 10.1109/EDUNINE51952.2021.9429101
- Khan, M., & Abdou, B. O. (2021). Flipped classroom: How higher education institutions (HEIs) of Bangladesh could move forward during COVID-19 pandemic. *Social sciences & humanities open*, 4(1), 100187. <https://doi.org/10.1016/j.ssaho.2021.100187>

- Long, T., Cummins, J., & Waugh, M. (2016). Use of the flipped classroom instructional model in higher education: Instructors' perspectives. *Journal of Computing in Higher Education*, 29(2), 179–200. <https://doi.org/10.1007/s12528-016-9119-8>
- Pokhrel, S., & Chhetri, R. (2021). A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning. *Higher Education for the Future*, 8(1), 133–141. <https://doi.org/10.1177/2347631120983481>
- Sharma, H. L., & Chowdhry, M. (2018). Improving the work ability confidence of elementary school students using flipped classroom strategy: focused on the class activities with problem posing and solving. *International Journal of Research and Analytical Reviews*, 5(4), 257–268. <https://doi.org/10.13140/RG.2.2.35841.30561/1>.
- <https://www.edweek.org/teaching-learning/opinion-blended-learning-in-the-age-of-covid-19/2020/08>
- <https://www.universityworldnews.com/post.php?story=20200528134934520>