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Amalgamation of Synchronous & Asynchronous Learning Tool for Blended Pedagogy

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Abstract

The National Education Policy is undeniably student centric, wherein the students are the key stakeholders and the system acts as a medium to cater to their dreams and aspirations. This approach allows a number of teaching-learning modalities to adopt that include face-to-face learning, online learning, and learning through distance or virtual mode. It also endorses the use of vocational courses, multidisciplinary courses and multi-modal approaches, founding a blended pedagogy.

With this pedagogical approach, one can make learning processes more effective and student-friendly by integrating synchronous and asynchronous learning tools into face-to-face and online activities. Students and teachers, both can make physical presence at the same place and control the pace of learning and actual take-ways through digital devices. In the flipped classroom program, students can be encouraged to access digital learning materials, through a cloud-based learning platform, during their time off.

Keywords *- Pedagogy, Blended Teaching, Learning tool, Synchronous Learning, Asynchronous Learning*.

Introduction

Pedagogy is an art and its journey from the past has witnessed many ups and downs. Presently, student-centered teaching is getting more importance as compared to teacher-centered teaching. As per the present concept, by encouraging increased student exposure, students are encouraged to student-centered learning and can be encouraged through various means like, by making teaching a creative activity, by providing more control over one's own learning, with more autonomy to choose learning practices etc. Pedagogy has been changing rapidly in the past few years. In order to develop best practices in academia, it is important to adapt to the changing needs of students in the process of teaching by adapting the use of proactive learning strategies to the development of innovative pedagogical formats.

An important model in these models is the blended approach to learning, correspondingly blended education. A mixed approach to learning is not new. Initially, along with teaching, the students were facilitated in their own reading skills; from reference books, online textual materials, blackboards to interactive whiteboards, downloadable materials to supplementary reading lists, to supplementary reading lists, technological change has led to constant innovation in teaching and learning, allowing students to discuss material, motivated and given the right to study at his own place. There has always been an element of 'mixed learning' for some courses, where different methods of information delivery are used. The traditional face-to-face curriculum consists of some on-campus lectures and tutorials, independent study through textbooks and readings, library research, and other activities.

But nowadays the term 'blended learning' mainly refers to integrating the use of technology in curriculum design and delivery. Blended learning is an instructional method, a teaching and learning approach that combines face-to-face classroom methods with computer mediated activities to deliver instruction. This pedagogical approach means a mix of face-to-face and online activities and integration of synchronous and asynchronous learning tools; it is a holistic educational approach that combines individual learning with technology to empower students to take responsibility for their own learning and support combination of teaching methodology. It offers optimum potential for a proactive, transmission approach to teaching and learning for arranging effective learning processes. In this research paper, on the basis of review, the study of blended education has been discussed keeping in view the previous study and the present scenario like Corona period, national education policy, new teaching method etc.

Objectives of the study

Present study was carried out with the objectives of analysis of blended education to understand the pedagogy of blended education; to study the different models of Blended Education; to explore the benefits and challenges of blended learning based on a review and to suggest measures for pedagogical enhancement in blended learning.

Research methodology

Entire study undertaken is based on secondary data and the present study is descriptive in nature. The paper specifically focuses on previous studies and tries to discuss the blended learning/teaching in present context.

Observations and Discussion

COVID-19 might have a devastating impact on humanity, but it has opened avenues for innovation in education. It has paved ways for widespread adoption of online teaching - learning pedagogy and has established thousands of virtual schools around the world (Dhawan, 2020; Wang, 2021). This has provided a unique opportunity to redefine the digital technologies and instructional approaches employed by teachers during the lockdown.

Over the past two to three decades, the development of digital technologies has a significant impact on the approach of interaction and communication among one other. Initially the impact of digital technologies in the educational sector was relatively trivial (Cuba, 2001), but over time, digital technologies have been progressively designed to make classrooms more useful - such as presentation software, learning management systems (LMS), Student Response System (SRS) and Game-Based Learning Platform (GBLP) (Moorhouse & Beaumont, 2020; Tay et al, 2017). Teachers no longer need to take students to computer labs or use expensive laptops during their classes; rather, they can use Internet-ready handheld devices, such as mobiles or tablets, in their classrooms through hot-spot or Wi-Fi connectivity (Hockley & Dudeney, 2018. This has resulted in the evolution of flipped classrooms and blended learning.

During COVID it was often observed that the use of LMS was widespread. Most faculty used a platform, such as Google Classroom or other institution-based platform. The platform remained popular as a central point for teachers and students to engage in teaching and learning. Marking on LMS could be done automatically. The results could also be analyzed. Simultaneously, the performance of the students could be evaluated. LMS became effective because students and

teachers clearly needed a familiar digital space to interact asynchronously and conduct various learning activities, such as uploading worksheets and materials, or submit an assignment.

Teachers also made full use of asynchronous instructional processing to provide online input, tailor-made presentations and videos featuring content for students. To create presentations, a number of content-creation tools or presentation programs were used, including Microsoft PowerPoint, Screencastify, OBS Studio, iMovie, and Annotate Everything. Presentation programs were also used by some faculty members to make teaching videos with voice over narration. So that students could record and watch these presentations or videos whenever and wherever they were, regardless of the speed of the connection. This brought flexibility to both students and teachers. Hosting sites such as EdPuzzle and YouTube were used to upload the videos.

Of late, it has become quite common to use asynchronous instructional resource tools such as Kahoot, Quizlet, NearPod, and Google Forms by the faculty. Survey administration software (SAS), such as Google Forms, have proved as effective platforms for designing and assigning exercises because they can generate analysis on student participation and accuracy. Apart from this, SAS is also a good and systematic method of assessing learning. The spreadsheet it creates, has made it very easy to evaluate the performance of students.

Various VCS platforms, including Zoom, Google Meets, Microsoft Teams and Webex, are also used to conduct simultaneous online classes. The platforms allow a scheduling function and a chatbox for conversations, a raised-hand icon, and a voice function; share screen and whiteboard. VCS serves to combine other tools, such as SRS and production tools; VCS can be used by other tools, such as production tools (such as Google Slides), game-based quiz platforms (such as Kahoot!). There are recording functions, also, for uploading lesson recordings for self-study or for security reasons, and a breakout room function, which allows teachers to assign students to small groups for discussions. Breakout rooms are seen as a useful tool, as larger classes can be broken up into smaller groups and students have more opportunities for discussion.

As many physical classes have been converted to temporary virtual classrooms overnight due to COVID-19, a host of teachers feel sick of online instructional practices (Morgan, 2020; Wang, 2021). In such a backdrop, the use of VCS to teach synchronously to online learners can become a possibility (Peachy, 2017). Technology scholars have begun to read teachers' changing mindset, classroom exigencies and impending adaptation to online learning due to the circumstances arising out of COVID-19 (Cheung, 2021). They have introduced several innovations for synchronous online learning, allowing students to become familiar with the technology, using the various features of VCS like share screen, gallery view and learning sequence.

In synchronous online learning, teachers using VCS teach live real-time lessons to their learners. It also offers the possibility to include a blend of asynchronous and synchronous online modes. Synchronizing online learning obviously brings additional challenges for teachers. Educators need to teach and communicate effectively on a single screen, manage multiple digital technologies simultaneously, maintain a sense of presence, facilitate real-time interactions and troubleshoot technical bottlenecks (Rehn et al, 2018). Despite these challenges, synchronous online learning allows teachers and learners to connect with each other in real time. They provide space for teacher-student and student-student interactions, engage learners in group activities, respond quickly to student concerns and issues, and make students feel supported to perform any asynchronous tasks. These advances provide online teachers with more options for instructional approaches than what is assigned to them (González-Loret, 2020). However, online teachers need

an awareness of technical tools and online instructional approaches if they are to teach effectively in online mode (Cleveland-Innes & Garrison, 2012).

The use of shared screens, along with the option to interact orally and in writing, means that teachers have the opportunity to collect data on student performance and share information with the entire class, in groups (in the breakout room), or individually. There are several ways to provide feedback.

COVID-19 has stressed the need for teachers to find alternative ways to continue teaching their learners. While the approaches and strategies required for online teaching differ from individual instruction (Servatka, 2002), teachers need to be prepared to adopt asynchronous and/or synchronous digital technologies and instructional approaches to create emergency virtual schools.

Conclusion

Developing an active learning strategy using blended formats can be challenging, but it can play a vital role in student-centered learning. It is a process of incorporating technology in classrooms to create best practices in the education world to make the teaching process innovative and creative. During practice sessions with students or professional development courses for faculty, when faculty members reflect "on-board" along with technology-integrated face-to-face teaching, create a good understanding between curriculum and pedagogy which is reflected in expanded learning spaces and opportunities, improved support curriculum management activities like communication, assessment submission, marking and feedback, increased availability and richness of information and resources for students, and beneficiary interactivity for collaboration. So blended learning is an interdependent combination of face-to-face and online learning that complement each other. Effective blended learning occurs when online and face-to-face modalities are used in a student-centered and student-directed manner for optimal learning.

Key features of blended learning pedagogy include instructional processing, assessment and communication. Asynchronous instructional resources provide a way for teachers to manage and create learning materials for students. Synchronous technologies can provide ample opportunities for real-time interaction and regular communication between students and teachers. Teachers can schedule synchronous online courses through VCS to interact in real time. Thus, both the teaching modalities have their own merits.

However, from the foregoing account, it is evident that neither asynchronous nor synchronous - only the teaching methods are sufficient to effectively instruct, evaluate, and communicate with learners. Further, a virtual blended approach actually arms the teachers with the necessary tools. Therefore, there is a need to emphasize a new model, the Blended Online Instructional Sequence, which enables the teachers to integrate asynchronous and synchronous online practices, as a possible way to instruct, assess and communicate and have effective distant learning.

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