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Teaching: Learning process through blended mode: Need of the hour

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Abstract

Blended learning is a combination of offline (face-to face, traditional learning) and online learning in a way that the one compliments the other. In Online Learning, the students study from home or any other place, they can acquire learning material online. That is most convenient for them, whereas offline mode of learning is face to face learning in traditional manner which provides a classical medium for educating students by allowing an open forum of communication between the pupil and teacher. Blended Learning Program is an innovative teaching method to combine the conventional classroom and technology use where students are actively engaged. Because of the following characteristics Blended Learning Program is used. It combines conventional method with technology enhanced learning. It adds new emerging open online resources and free tools. It also combines many teaching methods like team teaching, discussion, demonstration, project and case study methods. These learning activities engage students and increase their motivation level. A smart blend of online and offline teaching can help in bridging the digital divide (Pawar 2021). The deadly and infectious disease Corona Virus also known as Covid-19 has deeply affected the global economy. Closures of schools, institutions and other learning spaces (During Covid 19 pandemic) have impacted more than 94% of the world's student population. The mixed method of learning or Blended Learning is the Need of an Hour. Teachers, Parents as well as Governments also are in the favors of this mode of learning now a days (Pokhrel and Chhetri 2021). The objective of the paper is to analyze the Blended Learning Programmes which gives learners and teachers an environment to learn and teach more effectively. Learners can select the best activities to suit their own pace, learning style and level, as well as time and place. Learners can be more independent and self-reliant in their own learning.

Keywords: Blended-learning, online-learning, traditional-learning, face-to-face learning

Introduction

Blended learning is a combination of offline (face-to-face, traditional learning) and online learning in a way that one compliments the other. In online learning, students study from home or any other place and acquire learning material online which proves to be the most convenient method for them, whereas the offline mode of learning is face to face learning in a traditional manner. There are a lot of definitions and approaches about how to describe blended learning in the literature. Depending on the learning targets in the blended learning environments, students learn through face-to-face interaction in class and technology-based e-learning environments. The percentage of the in-class and e-learning environment varies. The definition of Blended Learning, used in the American literature, for the first-time, concerns both pedagogical approaches, and learning methods, using media, technology and relations between all of them, bearing in mind what to learn (Gynther, 2005) ^[16].

According to Wikipedia: Blended learning is a formal education program in which a student learns at least, in part, through the delivery of content and instructions via digital and online media with some element of student control over time, place, path, or pace.

Contemporarily, blended learning, also known as mixed learning, contains rich learning strategies. According to Harvey and Chris (2001) ^[4], a blended learning program may consist of one or more program combinations:

- Combining online and offline learning environments.
- Combining collaborative and individual learning environments.
- Combining structure and non-structured learning environments.
- Combining pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology.

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Singh and Reed's (2001) ^[1] definition of blended learning, approaches it as a progress and consider that it should be composed of different environments so that instructors can get optimized learning outcomes and budget. Therefore, they proposed an elaborated definition and said: Blended learning focuses on optimizing the achievement of learning objectives by applying the "right" learning technologies to match the "right" personal learning style to transfer the "right" skills to the "right" person at the "right" time. According to their definition, blended learning is a learning program that improves learning effectiveness through extending access, optimizing the cost of development and time, as well as optimizing learning outcomes. In literature, the most accepted definition includes Osguthorpe and Graham's (2003) ^[2] definition that is used to combine face-to-face (f2f) instructions with computer-mediated instructions in education.

Reviews of the related literature

1. Technological developments and the internet have changed people's lives on different scales including teaching and learning. Online learning is a new technological innovation that is increasingly used in education. The web has become one of the channels of learning that opens the door for people around the world to have access to education for free, or at lower costs (Selinger, Sepulveda, and Buchan, 2013) ^[5].
2. It can be said that blended learning is to some extent the solution to problems prevailing in our educational system. If implemented in a well-planned, organized way with the right type of attitude, it can become the future of our educational system. It is in our benefit if steps for adapting blended learning are soon initiated. Lalima and Dangwal (2017) ^[7].
3. Blended Learning is not inherently good or bad. It is not the solution to everything. Rather it is a pathway to student-centered learning at scale. To yield a result out of Blended Learning, school leaders must not start with Blended Learning or technology for its own sake instead must undertake a careful design process to unlock its potential. Horn and Staker (2014) ^[10].
4. A good merit of blended learning is that it can cater to individual preferences of learning style. Students are free to choose their preferred learning style to some extent though some components may be compulsory (Harding, Kaczynski & Wood, 2005) ^[11]. Thus, differentiated instruction is possible to a large extent. Self-pacing allows for the engagement of every learner at any given time in blended learning. Students also visualize that the learning involved becomes a process, not isolated individual learning tasks.
5. Baker 2018 ^[12] says that the blended learning method is becoming increasingly popular in the pedagogical field. It combines independent-study with valuable face-to-face interaction with a teacher. This study highlights students' attitudes towards learning outcomes in a general English Language course taught in a blended learning environment. The findings of the study show that students' attitudes towards the integration of blended learning had a positive effect in enhancing students' language skills as well as autonomous learning and learner motivation. Some recommendations were drawn to stakeholders, instructors, and students to enhance implementing blended learning aiming to enrich knowledge and develop language skills and proficiency.
6. Allan (2007) ^[14] in her book named "Blended Learning: Tools for Teaching and Training" has very beautifully described what is Blended Learning, tools and technologies, models of Blended Learning. She provided knowledge on design and development of Blended Learning programmes.
7. Khan and others (2012) ^[15] in their article entitled "Study of Blended Learning Process in Education Context" discussed the Blended Learning process and the advantages of using Blended Learning technique in an education system. The paper also discussed about the assessment method to be considered in this learning techniques. Pitfalls in blending learning were also discussed in the article.
8. Bansal (2014) ^[16] in his article entitled "Blended Learning in Indian Higher Education: Challenges and Strategies" discussed about the present challenges that is faced by our higher education system which is more so because of new technological wave. So in order to cope up with the challenges, the author here came up with the idea of introducing Blended Learning in higher education institutions in India.
9. Pokhrel and Chhetri (2021) ^[17] in the study 'A Literature Review on Impact of COVID-19 Pandemic on Teaching and Learning'- The COVID-19 pandemic has created the largest disruption of education systems in human history, affecting nearly 1.6 billion learners in more than 200 countries. Closures of schools, institutions and other learning spaces have impacted more than 94% of the world's student population. This has brought far-reaching changes in all aspects of our lives. Social distancing and restrictive movement policies have significantly disturbed traditional educational practices. Reopening of schools after relaxation of restriction is another challenge with many new standard operating procedures put in place.

E-Learning Vs Traditional

Learning In the traditional method of learning (classroom learning), there is direct or face-to face interaction between the instructor and learners in the classroom environment. Classroom learning stands for formal learning for it has stated objectives and gives fixed results. Here the contents can be tailored specifically for the participants and the learners share best-practices and build team understanding. Classroom learning provides more engaging environment in comparison to e-learning. In case of e learning, only motivated learners who are matured enough to take the responsibility of learning-process on their own can do well. Unmotivated learners either end up not doing anything or not finishing their course which means nothing but a waste of time. Other than this adequate computer knowledge in learners and proper interaction between the learner and the instructor is mandatory. In case of comparing learning in a traditional framework to a computer mediated learning framework, mostly learners' show higher satisfaction from the computer mediated learning, and have that the learning is more effective than in the traditional learning system. In other studies, too, it was argued that computer mediated or online learning is more effective and interactive. E-Learning includes many components that are familiar from traditional learning, such as:

Comparison between traditional-learning and e-Learning is summarized as follows.

- **Classroom Discussions:** In traditional learning the instructor usually talks more than the learner, but in e-Learning learner talks at least as much as or more than the instructor.
- **Learning Process:** In traditional learning the learning is conducted with the whole class participating; there is almost no group or individual study. But in e-Learning most of the learning process takes place in groups or by the individual learner.
- **Subject Matter:** In traditional learning the instructor conducts the lesson according to the study program and the existing curriculum. But in e-Learning, the learner participates in determining the subject matter; the studying is based on various sources of information, including web data banks and net-experts located by the learner.
- **Emphases in the Learning Process:** In traditional learning the learners learn what and not “how”; the learners are not involved in inquiry-based education and in solving problems, but rather in tasks set by the instructor. But in e-Learning, the learners learn “how” and less “what”; the learning includes research study which combines searching for and collecting information from web data banks and authorities on the communications network; the learning is better connected to the real world, the subject matter is richer and includes material in different formats.
- **Motivation:** In traditional learning the learners’ motivation is low and the subject matter is “distant” from them. But in e-Learning, the learners’ motivation is high due to the involvement in matters that are closer to them and to the use of technology.
- **Instructor’s Role:** In traditional learning the instructor is the authority. The instructor directs the learner to the information.
- **Location of Learning:** In traditional learning the learning takes place within the classroom and the school. But in e-Learning, the learning takes place with no fixed location
- **Lesson Structure:** In traditional learning the instructor dictates the structure of the lesson and the division of time. But in e-Learning, the structure of the lesson is affected by the group dynamics. In this way there are merits and de-merits of both type of learning approaches. Generally it is found that there is maximum focus on conventional class-room learning. But classroom learning is more expensive than e-learning, considering the total cost incurred. In a classroom environment it is difficult to take advantage of several different styles of instructing/teaching, but in case of e-learning it is possible. Considering all such facts, there is need of blending such learning environments for getting benefits of both the approaches i.e. e-learning and traditional-learning. The fact that people have different learning styles is a strong argument in favor of Blended Learning. Blended Learning refers to mixing of different learning environments. It gives learners and instructors a potential environment to learn and instruct/teach more effectively. Blended learning is a process where classroom learning is supported and developed by the use of structured learning through the internet and other media.

Features of blended learning

The important features of Blended Learning environment are

- Increased student engagement in learning.
- Enhanced teacher and student interaction.
- Responsibility for learning.
- Time management and flexibility
- Improved student learning outcomes
- Enhanced institutional reputation.
- More flexible teaching and learning environment
- More amenable for self and continuous learning
- Better opportunities for experiential learning

Models of blended learning programme

Blended Learning Programme means blending many teaching methods into one. It can be implemented using a wide range of models. Blended Learning can occur at different levels such as the student activity level, course level, program level and institutional level (Graham, 2004) [17]

Six models of the Blended Learning Programme are-

1. **Face-to-face driver model:** In face –to- face driver model, the teacher uses different methods of teaching in a conventional classroom. Students learn according to their own pace.
2. **Rotation model:** In rotation model, students rotate between different situations face-to- face classroom and online learning platform on a fixed time
3. **Flex model:** In this method, material is primarily delivered through the online platform. Teachers provide only support and guidance. It is a self-learning platform where students learn independently and practice new concepts in the digital environment.
4. **Online lab Model:** In online lab method, course is completely designed in the platform and students should complete their course in computer lab. It leads learners to struggle in their learning journey.
5. **Self-blend model:** This model gives students the opportunity to take classes beyond what is already offered at their institution. They are required to attend traditional classes and also select option to supplement their learning through online courses offered remotely.
6. **Online driver model:** In this model, students work in a remote place and the material is primarily delivered through online platform. Students are given opportunity to interact with their teachers in an online platform if they have doubts.

Levels of BL

Blended learning can be classified into four levels. They are:

1. Component level

This depends on the combination between several information transfer media and the learning content to form a whole that consists of several separated components that differ according to the learners’ nature and availability of traditional or electronic learning resources.

2. Integrated level

It is integration among different elements of electronic-learning based on the internet. Each component supports other components and evaluation is one of these integrated components to measure the learners’ ability to perform the assigned learning tasks.

3. Collaborative level

It is based on a blend between the teacher and the cooperative learning groups in the conventional classroom or the collaborative learning groups on the internet.

4. Expansive level

The blend between traditional classroom learning and offline electronic learning resources (email, electronic documents, programs, and books) (Al Fiky, 2011) ^[18].

Blended Learning as a Pedagogical Strategy

In a very simple way, blended learning can be considered as the integration of online learning and classroom learning. There is an urgent need to consider issues such as those related to time distribution as well as classroom activities, the relationship between resources and different learning modes, the balancing of online learning and classroom learning and the role of teachers in a blended learning environment. Various theories of learning and instruction contributed to the rise of blended learning strategy. Researches on blended learning explored how the pedagogical assumptions of blended learning evolved from various conceptual understanding of learning and instruction.

Pedagogical assumptions of blended learning are

- High priority attached to student learning and pedagogical needs while considering and applying blended learning approaches
- Strategic and systematic use of technology in association with a quality face-to-face environment to support student learning
- Enhancement and ultimate transformation of existing learning and teaching processes
- Accommodation of diversity in student learning experiences
- Enhanced interaction among students, teachers, peers and the community
- Increased capacity for student-managed learning
- Learners learn how to become architects of their learning processes
- Learning that takes place at students' discretion in terms of time and place
- Learning takes place in multiple contexts to support flexible knowledge transfer
- Teacher acts as a facilitator rather than a knowledge transmitter.

The blended learning models are so flexible and adaptive that teachers can create instructional activities that provide students opportunities to work collaboratively, tapping their interests and abilities in social learning.

One good merit of blended learning is that it can cater to individual preferences of learning style. Students are free to choose their preferred learning style to some though some components may be compulsory (Harding, Kaczynski & Wood, 2005) ^[11]. Thus, giving differentiated instruction is possible to a large extent. Self-pacing allows for the engagement of every learner at any given time in blended learning. Students also visualize that the learning involved, becomes a process and not isolated individual learning tasks.

The Benefits of Blending

Blended learning is not new. However, in the past, blended

learning was comprised of physical classroom formats, such as lectures, labs, books, or handouts. Today, organizations have a myriad of learning approaches and choices. Blending provides various benefits over using any single learning delivery medium alone (Singh, 2003) ^[19], explained as follows:

1. Extending the Reach: A single delivery mode inevitably limits the reach of a learning program or critical knowledge transfer in some form or fashion. For example, a physical classroom training program limits the access to only those who can participate at a fixed time and location, whereas a virtual classroom event is inclusive of remote audiences and, when followed up with recorded knowledge objects can extend the reach to those who could not attend at a specific time.
2. Optimizing Development Cost and Time Combining different delivery modes has the potential to balance out and optimize the learning program development and deployment costs and time. A totally online, self-paced, media-rich, Web-based training content may be too expensive to produce (requiring multiple resources and skills), but combining virtual collaborative and coaching sessions with simpler self-paced materials, such as generic off-the-shelf WBT, documents, case studies, recorded e-learning events, text assignments, and PowerPoint presentations (requiring quicker turn-around time and lower skill to produce) may be just as effective or even more effective.
3. Evidence that Blending Works: It is the early stage of the evolution of systematic blended learning and little formal research exists on how to construct the most effective blended program designs. However, research from some of the institutions and universities such as Stanford University and the University of Tennessee have given valuable insight into some of the mechanisms by which blended learning is better than both traditional methods and individual forms of e-learning technology alone. It shows that blending not only offers the ability to be more efficient in delivering learning, but more effective.

Significance of the study

Significance of this study is as follows.

- Blended learning programme is embraced for promoting situated learning, which refers to learning in term of activity and participation in a community of practice. Blended learning enables students to learn in various ways possible, including problem based and activity-based learning.
- One of the major reasons of this programme gaining momentum is due to teachers and instructors not using online learning to completely replace traditional face-to-face classroom teaching, but to complement or overcome some of the short comings of face-to-face teaching process.
- Blended learning programme is more important for higher achievers as well as medium and lower achievers. By this one blended learning programme can increase academic achievement of the students.
- Blended learning programme allows for personalized education, replacing the model where a teacher stands in front of the classroom and everyone is expected to stay at the same pace.
- Blended learning programme allows students to work at

their own pace, making sure they fully understand new knowledge of concept before moving on.

- Blended learning programme helpful to the students' to improve or increase their higher order thinking

Discussion

Blended learning is an approach that combines effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment. It can be approached as a fundamental redesign of the instructional model. Blended learning is the comprehensive instructional approach for providing socialized, constructivist and sustainable learning experiences through the meaningful integration of face-to-face interactions and elearning techniques. This approach makes learning process more efficient, easy, socialized, well-organized and professional. It provides opportunities for operational changes which lead to enhancing effectiveness of knowledge delivery mechanism.

The use of computers and online learning in education requires a much larger shift in thinking than simply adding a few computers to classrooms. Truly blended learning requires that teachers approach their role differently, as guides and mentors instead of purveyors of information. Classrooms must be redefined as flexible learning environments, in which students learn in a variety of ways, while communicating and collaborating with others who are outside their school - and perhaps outside their country. Learning should go beyond the classroom walls and the confines of the school day. For these changes to be successful they must be supported by professional development for existing teachers, and pre-service education for future teachers

Conclusion

Over the past few decades, there has been a dramatic shift in the knowledge delivery system and in turn in the way of developing various skills. Now there is a need to tailor the learning techniques in such a way that the needs of the learners can be fulfilled effectively and efficiently. Information Technology has also evolved with a great pace. It has remarkably changed the way of communication and interaction. It has brought dramatic changes to learning process as well. In today's competitive environment, organizational structure should be dynamic for being compatible with the learning needs and new environment to have result-oriented system. The advancement in technology and communication has made learning and training possible anywhere, anytime. At the same time it is also the fact that nothing can replace traditional classroom learning approach, but electronic learning complements the process. It leads to the concept of blended learning. Blended learning is basically an approach in which different learning environments are combined or for this purpose classroom learning is supported and developed by the use of electronic media. It gives learners and instructors a potential environment to learn and teach more effectively.

Recommendation

Based on our discussion above, suggest additional avenues for future research into blending learning:

- More insights into the factors and approaches which can improve connections between the virtual and physical elements of blended courses within

universities,

- Comparative research into the strengths and weaknesses of different ICTs, especially the new technologies integrated with face-to-face environments, to investigate the characteristics of optimal blends for learning,
- Pedagogical frameworks to support blended learning for teachers and students and
- More investigation into successful models of professional development and support for instructors who adopt this new mode of teaching.

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