

Role of Blended Teaching in Enhancing Effectiveness of Quality of Teaching-Learning Process: An Empirical Study

Dr.Nitin K Kamble¹, Abu Md. Mehdi Hassan², Dr Priyadarshini Mishra³, Edwin Asnate-Salazar⁴, Dr Agathian R⁵

¹Associate Prof D Y Patil College of Engineering Akurdi pune. nkkamble11@gmail.com

²Professor, Department of Physics, Government City College, Chittagong, Bangladesh. Email : mehdihassan1967@gmail.com

³Associate Professor, Dept of Physiotherapy, Institute of Health Sciences, Chandaka, Bhubaneswar, Odisha. drpriyadarshini.mishra@gmail.com

⁴Dr. of computer science and engineering, Universidad Nacional Santiago Antunez de Mayolo, Huaraz, Peru. <https://orcid.org/0000-0002-4319-8964>. edwin_johny@unasam.edu.pe

⁵Assistant professor, Department of Prosthodontics, Indira Gandhi Institute of dental sciences, Puducherry. Email - dr.agathian25@gmail.com

Abstract

Advancement and usage of Information and Communication Technology has brought significant transformation in the education system. Online learning system has facilitated learning experience and teaching with development in technologies and different communication channels. Talking about blended teaching and learning is a mixed paradigm of education, and it offers the promise of addressing various challenges faced by traditional learnings system with the introduction of a constructive approach to blended learning and education. Blended learning and teaching is an innovative concept that provides the benefit of the traditional teaching of the classroom along with ICT-supported learning. Blended learning is a combination of face-to-face learning along with online methods of delivering education that influences perceptions of students regarding the learning environment and teacher's experience of teaching; it also influences the learning outcomes. Today majority of teachers are making use of developed engagement strategies in the classroom and online teaching. Blended learning is helping in improving the quality of education. A sample of 200 respondents was collected from respondents through a "standard questionnaire," which was created on a five-point interval scale.

Keywords: Blended Learning, online learning, virtual classroom, hybrid learning, institutional approach, student engagement, teaching practice

Introduction

Regardless of teachers' opposition to making use of technology in education, a rapid increase in blended education can be seen, and that is driven by its benefits over traditional and online teaching. Many types of research have been conducted to find out the advantages and disadvantages of blended teaching and learning. Interviews were conducted with teachers who were using a blended system of teaching and learning and asked them about the reasons why they are using this system. Teachers were highly valuing the classroom components as compared to online. Such attitude is heavily driven by the contemplation that a particular function of

learning was suited in the best way to a particular format. The effectiveness of blended learning and how it enhances the effectiveness of the teaching-learning process can be derived by observing how such courses are influencing students as these courses offer a great range of advantages and resources to students that would enhance their experience of learning that is beyond either online or face-to-face modes alone. In blended learning, it provides the mode of teaching that removes the hindrances like a place, time, and other situational obstacles, and at the same time enables best quality coordination between teachers and their students. There are various methods to judge the

effectiveness of classroom teaching practices and online teaching systems. The most common method is to check the learning of students. The least common way of evaluating a blended system is the evaluation of courses against a set of principles of pedagogic. By using recognized criteria, a benefit of evaluating courses is the elimination of the third variable problem that comes in the picture when learner's learning results are used as the method of measurement. There are a lot of factors other than the effectiveness of teaching that impacts the learnings of students. Evaluating classroom directly and online components against established criteria is a direct method of quality of blended learning and teaching (**Jeffrey et al. 2014**). Blended learning has earned a lot of popularity in the last two decades, after which many teachers and educators claim that it has a lot of potentials to go hand-in-hand with the philosophy of open and distance learning in many fields. The reasons of using a blended learning system is based on the reality that this strategy owns the potential of offering a lot of opportunities of teaching and learning that are included in face-to-face teaching enabling learners who are frequently absent from regular classes and they would be able to improve their grades by watching online lectures and by using other recorded lectures and materials at their home (**Muthuraman, 2018**).

The academic performances of learners have improved with the blended learning system through its being useful, easy, clear, flexible, and other feasible tools. The participation, engagement, interaction, collaboration, and communication skills of students have improved and increased in the comfortable environment of blended teaching and learning. Learners have also become friendly, self-dependent, confident and more self-regulated. Furthermore, it has enabled them to develop strong associations with their teachers, instructors and other students. A significant level of satisfaction has been observed among students who are using blended learning tools as it enables them to record sessions to view it later, it is clear and motivates their long-term learning (**Mohamed, 2022**).

Literature Review

Atef & Medhat (2015) stated that the system of blended teaching and learning has been using for some time now and it has already built good practices for the benefit of students. Teachers who are adopting different methods of teaching are able to offer a more rewarding and successful experience of learning to their students. When a teacher understands how in the best way the e-learning can be blended with the existing program of learning, then more usage of technology can be done. The combination of different methods of learning in the same classroom is no longer unusual. With the use of well-established learning methods, the blended courses are designed by experts like self-paced e-learning, face-to-face learning and teaching, and other learning resources in virtual classes.

Poon (2013) studied that different approaches of learning and teaching have been found to be directly influencing and enhancing the learning experiences of students. Blended learning is a combination of physically teaching and online method of delivery, and it has the capability of influencing perceptions of learners as well as the learning environment and the result of teaching along with academic achievements. For teachers who are planning to use a blended teaching system in future are recommended to keep it simple, but the individual must be ready to be experimental. Distinct courses and modules are needed to suit the course and the requirement of learners in a blended form of teaching, and flexibility is essential.

Lalima & Dangwal (2017) explained that right attitude, rigorous efforts, encouraged teachers and learners, and good budget is needed for the successful implementation of blended learning and teaching. Evaluation of traditional methods of teaching and ICT-supported methods have been found with some advantages and disadvantages. Both the systems satisfy different requirements, demands, and expectations of both teachers and learners from the educational system. The solution for this is to design and provide a system that is based on an integrated approach and have all the features of traditional and ICT-based learning and teaching. The demand of teachers and students these days is to have a system that provides the benefits of both kinds of system, and a blended system of education is found to be the right one.

Kintu, Zhu, & Kagambe (2017) explained that to undertake innovative pedagogical approaches effective system of blended teaching and learning is essential with the inclusion of technology in education. Analyses of features, the background of students, design features, and the result of learning as an element for effectiveness would assist in informing the designing of an effective environment of learning that includes online teaching along with face-to-face sessions. Most of the characteristics of learners and design features of blended learning found in the study are essential elements of blended teaching and learning effectiveness. Constituting considerable predictors of results in blended learning would assist in informing the planners of that learning environment so that they can put in place the essential groundwork to design an innovative blended learning program with pedagogical approaches.

Khader (2016) found that the blended method of teaching and learning is an invented technique as it provides a new way of teaching with the usage of information technology and communication system and without making a radical change in traditional methods. A blended system does not rely on traditional methods, but it improves it with the integration of technology and other electronic methods. The computerized lessons are prepared with certain patterns and mechanism by recalling the previous experience of new lessons, it also include presentations and activities are prepared by the instructors. and they make learners to work with them and solve queries.

Ayyagari & Aryasri (2018) revealed that in blended technology of teaching and learning, students all over the world are taught by the best teachers with high quality, where teaching is personalized as per the learning capacity and ability of students. At present, the technology of blended learning is an incredible platform of teaching and learning that provides personalized results from learning and is truly scalable. It has extensively integrated artificial intelligence, virtual reality (VR), Internet of things (IoT) in their education to assist students with the customized and unique mock tests that help them in preparing for the competitive examinations. Instructors are making use of the latest gadgets such as smart boards to write notes

that are assessable by learners anytime and anywhere from their devices.

Shivam & Singh (2015) stated that there is no doubt that the blended method of teaching n learning is enhancing the effectiveness and quality of education. It has increased the collaboration between teachers and their students. Information sharing can be done with the use of technology not just within the campus but across the globe. It motivates students to complete their tasks and learn on time. Learners of the current generation are digital natives and are born with the internet network and are transforming themselves from old to new web-based system of learning, which is making them more cooperative, combined, and have also increased their participation.

Shukla, Dosaya, Nirban, & Vavilala (2020) found that the online courses that are included in the blended learning system provides access to learners who are from remote areas and marginalized sections of the world. Blended system of learning help students in the development of their critical thinking and also increase learning capacity of learners, which is essential in 21st century. Blended teaching and learning method is a shift from traditional method to electronic method. Online learning system develops potential space of learning for learners by using technology that enhances the effectiveness of the process of teaching as well as learning. More research must be conducted by educational technologists and researchers from distance education fields.

Masadeh (2021) found that the attitude and perception of students and teachers would be changed towards education with the positive and comfortable system of blended learning and teaching because it provides the flexibility of time and place. The benefits that a blended system of education provides would be helpful for teachers who want to adopt the system and motive others as well. The study shows that there must be a balance between the goals of the administration, the requirements of learners and the limits of faculty. At the same time, it also highlights the need of proper structure and dialogue in a functional environment of teaching. Regardless, the blended teaching system has been proved as a successful method of teaching in the past few decades as it has made a positive influence on students and have helped them achieve their goals.

Dwiyogo & Radjah (2019) explained that the educational environment and technique that includes traditional systems along with the usage of technology and various other academic sources and modes is called a blended teaching and learning system. The exercise of blended learning based on adaptive physical education material of teaching has the potential of improving the learning of learners and its results as well includes attractiveness, efficiency, and effectiveness. The quality of teaching and knowledge is always associated with the methods of learning that are essential for the achievement of academic goals but under certain conditions. Thus, to obtain high quality of education, teachers must adopt the blended system of teaching and learning.

Zavaraki & Schneider (2019) revealed about some of the opportunities for students that can be received through blended learning system are the availability of various resources, facility of information delivery, increased motivation, self-esteem, increased confidence, independence, increased educational activities, the collaboration of classroom teachers and special instructors, empowerment of learners with disabilities, personal development of teachers and students, developed educational curriculum.

Bhadri & Patil (2022) explained and suggested to students that with the assistance of blended teaching and learning system will improve their learning and change their attitude towards education with the combination of Asynchronous and synchronous modes of learning and it would give them the opportunity to learn independently and flexibly. The task of designers of the system and teachers has become critical and they must work together to develop a good and effective system for learners.

Simultaneously, educational designers can bring improvement and develop user-friendly approaches of blended learning and make it easy for learners and teachers to adopt the system.

Study's Objectives

1. To measure the various Role of Blended Teaching in Enhancing the Effectiveness of the Quality of Teaching-Learning Process.
2. To ascertain the significance of Role of Blended Teaching in Enhancing Effectiveness of Quality of Teaching-Learning Process.

Methodology

The study is empirical in nature. 200 respondents participated in the study. The data was collected from them through a structured questionnaire. Mean and t-test application was done to identify the results. The method of sampling was convenience sampling.

Finding of the study

Table 1 displays the gender, showing male respondent as 53.50%, and female respondent as 46.50%. Looking at the Age of the Respondents, those who are of 18 to 22 years are 35.50%, those between 22 to 25 years are 30.00%, and those who are 25 years and above are 34.50%. With reference to the Usage level, Schools are 25.00%, Colleges / University are 41.50%, and Professionals are 33.50. Looking at the Regions, Urban regions are 59.50%, and rural regions are 40.50%.

Table1 Details of the Respondents

Variable	No. of respondents	Percentage %
Gender		
Males	107	53.50%
Females	93	46.50%
Total	200	100%
Age		

18 to 22 years	71	35.50%
22 to 25 years	60	30.00%
25 years & above	69	34.50%
Total	200	100%
Usage level		
Schools	50	25.00%
Colleges / University	83	41.50%
Professionals	67	33.50%
Total	200	100%
Regions		
Urban region	119	59.50%
Rural region	81	40.50%
Total	200	100%

Table2 Various Role and the Significance of Blended Teaching in Enhancing Effectiveness of Quality of Teaching-Learning Process

Serial No.	Statement of Survey	Mean Value	t-Value	Sig.
1.	Blended teaching improves education quality and sharing of information that makes teaching more efficient, and effective.	4.33	19.140	0.000
2.	A blended system of learning allow students to work at their own pace, which ensures that they are fully understanding new concepts without going through the pressure of moving to the next topic.	4.27	18.392	0.000
3.	This system assists learners in exploring new technologies and using different instrument and techniques for learning.	4.22	17.949	0.000
4.	Instructors motivate learners to interact with other students with the help of Discussion Forums, chat rooms, and other Online interactive tools.	4.19	17.155	0.000

5.	Blended learning style promotes various effective methods for teachers and learners to become more engaged with each other.	4.00	14.652	0.000
6.	Methods of Blended learning enable learners to explore information or guidance online that is accessible any time and at any place.	4.03	14.838	0.000
7.	Blended learning has eased the access to the huge course materials as per the requirement of students.	3.47	6.835	0.000
8.	Educators who are adopting this classroom-style are easily receiving the advantages of having their traditional modes enhanced.	3.79	11.539	0.000
9.	Technology is used to support learning that is self-directed and involves the use of interactive and collaborative learning activities.	4.10	15.874	0.000
10.	Blended learning is very popularly and helping learners in their professional development	3.83	12.187	0.000

Table2 displays the Mean values for statement for the study done to know the “Various Role and the Significance of Blended Teaching in Enhancing Effectiveness of Quality of Teaching-Learning Process” the first statement is about the quality and knowledge sharing “Blended teaching improves education quality and sharing of information that makes teaching more efficient, and effective” with the mean score of 4.33. Statement “Blended system of learning allow students to work at their own pace, which ensures that they are fully understanding new concepts without going through the pressure of moving to next topic” has the mean value of 4.27, next statement is about students exploring new technologies, “This system assists learners in exploring new technologies and using different instrument and techniques for learning” with the mean score of 4.22. Forth statement is about the interaction “Instructors motivating learners to interact with other students with the help of Discussion

Forums, chat rooms, and other Online interactive tools” the mean value is 4.19, next statement says that blended learning promotes new methods of teaching, “Blended learning style promotes various effective methods for teachers and learners to become more engaged with each other” has scored the mean value of 4.00, next statement is “Methods of Blended learning enable learners to explore information or guidance online that is accessible any time and at any place” the value is 4.03. Seventh one is about access to huge course material “Blended learning has eased the access to the huge course materials as per the requirement of students” the mean value is 3.47, next statement is “Educators who are adopting this classroom-style are easily receiving the advantages of having their traditional modes enhanced” the mean value is 3.79, the last two statements are “Technology is used to support learning that is self-directed and involves the use of interactive and collaborative learning activities” and “Blended learning is

very popularly and helping learners in their professional development” with the mean value of 4.10 and 3.83 respectively. T-value of every statement in the context of Various Role and the Significance of Blended Teaching in Enhancing Effectiveness of Quality of Teaching-Learning Process is significant because t-value statements are found to be positive and significance value also less than 0.05.

Conclusion

Blended learning is an educational approach that combines the traditional method of teaching with the technology of e-learning. With the involvement of digital instruments, classroom teaching is enhanced. However, despite its popularity, it is still essential to ask and evaluate if blended learning is actually effective? Yes, all thanks to its popularity and effectiveness and the benefits that it provides to teachers and students that have made it popular and attractive to adopt. When learners who were studied through traditional methods of learning given access to online learning had improved their performances. One of the major reasons behind their success is they get motivated to use multiple styles of learning and get access to huge learning materials, and it also offers flexibility in terms of availability. In other words, while enjoying the benefits of face-to-face learning students can access material that is available online from anywhere and at any time. Accessing global level study material improves knowledge of students and increase their interest as well. Benefit of self-pacing for students who are slow or quick in learning reduces the level of stress, increase their level of satisfaction, and retention of information. It also increases the level of interaction between learners and their teachers through e-mails, chat rooms, and discussion boards. T-test has been done to find out the outcome of the research, all the statements are found to be significant as the significant values for all statements is less than 0.05.

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