

Implementation of Blended Learning in Higher Education

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Abstract:

The teaching learning has a traditional method which is basically teacher centric where modern technologies are not implemented in class room. It has proved that implementation of ICT makes teaching - learning more effective. So, to eliminate the disadvantages of traditional method of teaching it has been needed a new innovation in teaching method. Where both traditional and modern ICT based teaching will be practice simultaneously. Blended learning is an integrated approach to teaching and learning that includes multiple mode of instruction and learner practice. It is an innovative concept that embraces the advantages of both traditional teaching in the classroom and ICT supported learning including both offline learning and online learning. The main objectives of the study are to describe the characteristics of blended learning. And to find out the advantages and disadvantages of implementation of blended learning in higher education. The study found that the main advantages of implementation blended learning in higher education are better communication and collaborative learning, a personalized training experience, cost effective training strategy, enhance effective learning, online or offline mode so teachers and students get more time in the classroom for creative and cooperative exercise, ultimate flexibility in presenting content etc. The main disadvantages are lack of experienced teachers, how to create interactive blending environment and assign the roles of live interaction, so as to have interactive learning process to achieve learner satisfaction with the process, lack of infrastructure within an educational institution.

Key Words: Blended Learning, Higher Education.

1. Introduction:

Blended learning is such type of approach that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods. Blended learning requires the must be physically attend of both teacher and student, with some elements of student control over time, place, path, or pace. While students are attending the schools with a teacher present, face-to-face classroom practices are combined with computer mediated activities regarding content and delivery. Blended learning is also used in professional development and training situation. The teaching and learning situations are clasping a number of innovations and some of these involve the use of technology through blended learning. This learning method is developed pedagogical approach has been embraced rapidly though it goes through a process. The introduction of blended learning (combination of face-to-face/traditional and ICT based teaching and learning) initiatives is part of these innovations but its uptake, especially in the developing world faces challenges for it to be an effective innovation in teaching and learning programmed.

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2. Literature Review:

Bonk, C.J and Graham, C.R. (2006)¹ in 'the Handbook of Blended Learning: Global Perspectives' Reported that it is rationale to take advantage of both Internet and other technologies such as mobile devices, simulations and face to face learning. Personally, I am convinced that the future requires blended learning since with the infusion of various technologies and communication modes into our lives; we are surrounded by a blending world which will be more blended in the future. And surely, this effects and will keep on affecting the way we teach and learn now and in the future.

Dziuban, C., Graham, C.R., Moskal, P.D. et al.(2018)² study on 'Blended learning: the new normal and emerging technologies'. The study found that 65.2% of participating institution of higher education (IHE) offered blended courses. The study found that 35% of higher education offered blended learning coerces and 12% distance education were in blended coerces.

Gunjan. N. (2014)³ conduct a study on 'ICT Based Education: A Paradigm shift in India' The aim of the study was technologies will enable us to develop what are often called virtual classrooms, virtual universities, virtual conferencing, virtual laboratories, etc. Emerging technologies appear to offer the opportunity to gain access to knowledge and closer to real life. This would lead us to a learning society. This is a single new development that can revolutionize the future of education.

Jung, I. (2005)⁴ made a study on 'ICT-Pedagogy Integration in Teacher training: Application Cases Worldwide'' Major finding of the study is most of the studies have revealed that learners' preferences or expectations toward the classroom environments are often different from those in realty. Educators and web content developers can well understand the possible gap between students' expectations and perceptions toward some existing Internet-based learning environments.

Kintu, M.J., Zhu, C., Kagamb, E. (2017)⁵ study of 'Blended learning effectiveness: the relationship between student characteristics, design features and outcomes' The findings indicated that effective blended learning environment is necessary in undertaking innovative pedagogical approaches through the use of technology in teaching and learning.

¹ Bonk, C.J and Graham, C.R. (2006) Graham: The Handbook of Blended Learning: Global Perspectives, Local Designs ISBN: 978-0-7879-7758-0 Publisher: John Wiley & Sons, Inc. Pfeiffer Pages: 624 March 2006.

² Dziuban, C., Graham, C.R., Moskal, P.D. et al. Blended learning: the new normal and emerging technologies. Int J Educ Technol High Educ15, 3 (2018)

³ Gunjan.N. (2014). ICT Based Education: A Paradigm shift in India. New Delhi Publication, Techno Learn: 4(1), p. 15-26.

⁴ Jung, I. (2005). ICT-Pedagogy Integration in Teacher training: Application Cases Worldwide. International Forum of Educational Technology & Society, April 2005, Volume 8 Number 2

⁵ Kintu, M.J., Zhu, C., Kagamb, E. (2017).Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, Volume 14, Article number: 7 (2017)

Oweis, T. I. (2018)⁶ a report on "Effects of Using a Blended Learning Method of Students' Achievement and Motivation to Learn English in Jordan: A Pilot Case Study" He made sample of 34 (Experimental 16 and control 18). The results demonstrated that the high performance of the experimental group could be attributed to the advantages of the computer in providing information. The advantages of the computerized program may have contributed to the better performance of the students in the experimental group who were taught using a computerized material designed to be attractive, interesting, and enjoyable for students and contains sight and sound features that far outweigh the rigid drawings in the book, thus making learning more fun.

3. Define of The Terms:

The concept of behind blended learning was first developed in 1960.⁷ The term "blended learning" was initially vague, a wide variety of technologies and pedagogy and andragogical methods in complicated combinations. In the year 2006, the term "blended learning" became more concrete with the publication of the first "*Handbook of Blended Learning*"⁸ by Bonk and Graham. Graham challenged the breadth and uncertainty of the term's definition, and defined "blended learning systems" is such type of learning systems that "combine face-to-face teaching with computer mediated learning.

ICT-based teaching emerged as an alternative to teachers-led teaching in the 1960s on mainframes and mini-computers. The major advantages that blended learning offers are scale, whereas one teacher can only teach so many people. ICT based teaching had lot of number of interface limitations that gave way to satellite-based live video in the year 1970⁹. The major challenges were the costs required to make this work. In the early year of 1990, providing ICT-based learning as bandwidth through 56k modems wasn't able to support very high-quality sound and video. Modern blended learning is delivered online, although technological devices could feasibly still be used if a learning management system meets an institution's standards. Like, channels through which online blending learning can be delivered include webcasting (synchronous and asynchronous) and online video (live and recorded).

The use of Blended learning is big challenging that how users can successfully use the technology. Hofmann (2014)¹⁰ adds that teachers getting into difficulties with technology may result into abandoning the learning and eventual failure of technological applications. Learners are important part in any learning process. Their background knowledge, pre-experiences and characteristics affect their ability to effectively carry on with learning out-come. In classroom

⁶ Oweis, T.I. (2018). Effects of Using a Blended Learning Method of Students' Achievement and Motivation to Learn English in Jordan: A Pilot Case Study, School of Basic Sciences and Humanities, German Jordanian University, Amman 11180, Jordan

⁷ https://en.wikipedia.org/wiki/Blended_learning

⁸ Curtis J. Bonk and Charles R. Graham: The Handbook of Blended Learning: Global Perspectives, Local Designs ISBN: 978-0-7879-7758-0 Publisher: John Wiley & Sons, Inc. Pfeiffer Pages: 624 March 2006.

⁹ Jung, I. (2005). ICT-Pedagogy Integration in Teacher training: Application Cases Worldwide. International Forum of Educational Technology & Society, April 2005, Volume 8 Number 2

¹⁰ Kintu, M.J., Zhu, C., Kagamb, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. International Journal of Educational Technology in Higher Education, Volume 14, Article number: 7 (2017).

situation blended learning, the design tools to be used may impinge on the effectiveness in their learning.

Oxford Dictionary¹¹ Definition of Blended Learning: a style of education in which students learn via electronic and online media as well as traditional face-to-face teaching.

Defining hybrid or blended education is a trickier task than one might think—opinions vary wildly on the matter. In a report on the merits and potential of blended education, the Sloan Consortium¹² defined hybrid courses as those that “integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner.” Educators probably disagree on what qualifies as ‘pedagogically valuable,’ but the essence is clear: Hybrid education uses online technology to not just supplement, but transform and improve the learning process.

4. Objectives of the Study:

The overall study objectives are to formulate a broad aspect on blended learning in higher education system, like –

- i) The main objectives of the study are to provide of summary on blended learning.
- ii) To describe the outline of the characteristics of blended learning system in higher education.
- iii) The present paper gives some idea that how to use of blended learning in higher education classroom.
- iv) Fiend out the main advantages and some disadvantages of blended learning.
- v) To develop framework, setting out guidance for more information on blended learning, that how to re-construct of this learning style.

5. Design of Blended Learning:

At first, we know that how can use have blended learning to leverage new opportunities for teachers to teach his/her students and students to learn the concepts that are most effectively. If there are specific areas where students have a lot of difficulty in, what online activities could support these learning difficulties. A blended learning (ICT based and face to face traditional method as well) takes the “best teaching method of both worlds” by combining the best of face-to-face traditional learning with the best of ICT based online learning. Technology may better opportunity some types of learning, and teaching time can be shortened and used for activities that better lend themselves to face-to-face interaction with them. An integrated learning model accommodates a wider range of learning styles by offering flexibility, more facility for learning, and integration of learning activities that lead to mastery learning. These are just some techniques that teacher has used to design blended learning courses.

¹¹ <https://www.teachthought.com/learning/the-definition-of-blended-learning/>

¹² <https://www.teachthought.com/learning/the-definition-of-blended-learning/>



Figure No-1: Models of Blended Learning

6. Steps of Blended Learning Course:

Blended Learning model are followed some steps. The following step-by-step model for developing a blended design is adapted from Stein and Graham's (2014)¹³ design for a single lesson. It is based on a "Blooms Taxonomical" design approach, which aligns course goals and objectives with course assessments and activities. Following the Taxonomical model of blended design. Basically, Blended Learning model are followed four main steps –

i) Identify course goals and learning objectives:

The learning design's goals and outcomes are clear statements that answer the question- What types of skills, knowledge or attitudes will the students developed to successfully complete the course?

Learning objectives (referred to learning outcomes) are specific statements that describe what a student should be able to earn as a result of learning within particular lesson or content. The taxonomy of educational objectives is typically in the form of knowledge, skill or attitude. According to B.S. Blooms taxonomy of educational objectives can be classified into 3 main categories. On the basis of instructional objectives: Cognitive Domain (Develop thinking ability), Affective Domain (Develop attitude or feelings), and Psychomotor Domain (Develop physical skill or doing ability).

ii) Determine assessments to measure each objective:

To determine the measure of activities for a particular course, consider the following question - How to develop the student's skills, knowledge or attitudes required to successfully completing the course?

With your learning outcomes in mind, determine what activities might serve as evidence that students meet each of the outcomes. The nature of the assessments will depend on the depth of knowledge or skill. When simple facts are required, quizzes might be an efficient way of measuring learning. However, when students must use higher-order thinking skills to analyze and evaluate, real problems and scenarios are more accurate. Examples of assessment activities include: problem solving tasks and scenarios, models and diagrams, essays, research reports, etc.

¹³ Stein, j and Graham, C.R. (2014). Essentials for Blended Learning (1st.ed.). Routledge Taylor & Franics Group, New York and London, NY 10017

iii) Plan learning activities:

In the class learning activities are include any course activities the students must to be completed in order to help them focus the course aims and objectives. As Examples include: attending/watching lectures, watching other videos, participating in an online discussion forum, completing individual or collaborative assignments, taking quizzes, participating in in-class group work or other activities, etc. It is specifically not so difficult to mix on readings and lectures in the online environment. So, when planning the learning activities is a need to have or nice to have. Consider creating a separate subsidiary resources & Activities section in the LMS (Learning Management System) for the nice to have activities, and direct students to specific resources and activities as proper.

iv) Determine sequence and environment for each activity:

Determine sequence and environment for each activity are the final step of the planning process of blended learning system. All the pieces together and mapping out what the course will look like? To prepare the complete plan for blended learning course, complete the following tasks-

- Group of all learning activities and assessments into the design determine the sequence of each of the activities within in module.
- Determine the environment for learning activity and assessment (both ICT base and face-to-face). If any activities are to be online, make notes about which tool you will use for the activity and what development is required to get it online (like, enter quiz questions, formative test, record a lecture, into LMS, create student groups in LMS, etc.)

7. Advantages:

The advantages of blended learning are far more important than one might think, as they affect not only the teachers, but also the learners and learning process.

i) Improves Attentive engagement:

When information technology is integrated into lessons, students are expected to be more interested in the subjects they are studying. ICT provides more opportunities to make learning lot of fun and enjoyable in the classroom same things in new ways. Students on virtual field trips and using other online learning materials. What is more, technology can encourage a more active participation in the learning process which can be hard to achieve through a traditional lecture environment. To achieve attentive engagement, the blended system in learning uses a abundance of different e-material types. Like- video, audio and visually enhanced presentations are included in a blended learning lesson design to help the learner's engagement and, also, to make sure that all content or topics is easily understood.

ii) Improves knowledge:

Students are interested and engaged of online teaching or instruction. Technology can help to encourage active participation in the classroom teaching, which also a very important factor for increased knowledge and understanding. Different forms of technology can be used to experiment with and decide what works best for students in terms of retaining their knowledge.

iii) Variety of content:

In blended learning design Use a variety of content. The main reason is, why books for younger generations are illustrated is rather simple. A child is much less likely to sit down and read pages to pages text books. Students are more interest to read and listen of online or digital content. In blended learning method are provide variety of content, like video audio, e-content, etc.

iv) Improved feedback:

This learning method greatly affects the way of feedback. To begin with, by mock test and quizzing online. The teacher has the time to arrive to conclusions about the learners' behaviours without wasting valuable time from the class. Blended learning method allows for feedback to be prepared from home. Teacher can be provided it to learner's feedback in the physical environment. Using information from within the Learning Management System (LMS), in the forms of a report or automatically generated feedback.

v) Different learning style:

In modern time your instructional methods is a good way to approach the issues that, when you offer an online course to a possibly large amount of individuals from all over. This could not be guided by the traditional training model as well, whether we are talking about a classroom full of students training environment.

Blended learning helps all types of teachers and learners in various ways. Like as –

- Blended learning allows trainees to take information home and have their own time to assimilate it without the pressure of keeping up with the rest of the class.
- Quiz session and any test in online allows for teacher and also students to have more time to educate in the classroom environment. It earns the teacher's extra time to facilitate contact with learners and answer questions, to make sure that everyone's issues are being resolved.

8. Disadvantages:**i) Wastage of Resources:**

In blended learning are allotted more technical devices for instruction. If the students are unaware of technology used during the learning course, then this will also be wastage of resources without improving ROI (Return on Investment).

ii) Technological dependence:

Achieve the learning objectives of blended learning program, the teacher also use the technological tools and resources that are easy to use. There is a limitation with regards to use technical skills of both the teachers and students. This learning strategy must be outcome with needs to technical support.

iii) High technology set up and maintenance costs:

Online learning technology for blended learning program, such as electronic devices and organizational infrastructure setup, can be costly.

iv) **Lack of motivation:**

All blended learning model are not suited to every age of students and school. If a teacher expects young children to do all their homework and complete the lessons on their computer. It might not work as expected. It can also demotivate to students.

v) **Basic technology knowledge:**

In this learning method's teachers and learners need to have some basic knowledge on technology to access of technological devices. users will get annoyed if they don't know how to access the learning content, then whole teaching system are failure.

9. Conclusion:

On the basis of above discussion an effective blended learning method is necessary in undertaking innovative psychological approaches through the use of technology in teaching and learning. An evaluate of learner's characteristics, content features and learning outcomes as important factors for effectiveness can help the design of proper learning environments. That involves face-to-face teaching and online aspects. Planning to design and implement of blended learning, we are alert for the implications moved by this study which is a planning, assess research for the design and ultimate implementation of blended learning method. Blended learning is meant to improvement learners' levels of knowledge construction, understand and ability to application in order. Learner's ability to evaluate and critically assess knowledge sources is here by established in our findings. Universities, colleges and other higher education institution of learning should continue to focus blended learning approaches through establishment of learning management systems along with strong internet to enable effective learning through technology especially in the developing world.

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