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Adopting a Blended Learning Model in Education: Opportunities and Challenges

Abstract

In the last two decades, it has been observed that the blended learning model becomes a firm alternative and expand traditional teaching. The purpose of this paper is to do a review of blended learning in education analytically. Depending upon the detailed literature review and investigations in blended learning course integration the author counters challenges and opportunities in educational institutions. Hence, the study encapsulates the successful implementation of blended learning by a mix of online and face to face learning. In the future, the outcomes of this study may open a way forward for researchers and others to design their research accordingly in this field to deeply investigate therein.

Keywords: Implementation, Blended Learning, Education.

Introduction

The successive development of Information and Communication Technology (ICT) and the shift towards a knowledge-based global society have uncovered many opportunities and challenges in the pedagogical approaches and instructional design model for tertiary institutions. ICT widely developed fast and easy communication medium with a wide range of updated software and services therein to support learning, teaching, and collecting work for enhancing and supporting the strategies and practices of teaching and learning. This innovative technical application and services give opportunities for supporting and enhancing teaching and learning strategies and practices. Many organizations started moving towards adapting international teaching pedagogy in education. The international teaching standards meant for students center needs advanced learning modes to be adopted in education based on the latest applications and technologies of e-learning.

Review of Literature

To enrich the study, the review of past literature helps to understand and differentiate the multiple definitions of blended learning based on traditional and web course design. It used to study different interpretations of blended learning, many researchers have defined blending as a method of learning training that combines the benefits of classroom learning and e-learning, (Matukhin and Zitkova, 2015); Matukhin et al. 2014). Various blended learning models have been designed by different institutions according to their learning needs. For instance, Staker & Horn (2012) of the Innosight institute identified four different models suitable to the K-12 blended learning programs. Bryant and Garrison (2006); Observed that face-to-face contacts are essential for first-year university students who need more guidance, with the aim of completely transforming the online course into a mixed format. In addition, Stanford and the University of Tennessee have proven that blended education is superior to both traditional

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methods and the individual form of e-learning technology. Singh and Reid (2001) state that this research gives us the confidence that blending not only gives us the ability to be more effective in learning, but it is also more effective. Allen and Seaman (2013); has classified the courses in four sections:

- First, the traditional methods based learning method based on the use of paper and pen.
- Second, the web-based learning method based on the use of web pages to display the syllabus, assignments, etc.
- Third, the blended (hybrid) based learning consists of both traditional and web-based.
- Fourth, the online course where all the activities of learning are completely based on the internet.

Akpan (2015); explores online learning approach to teach mathematic in higher education. He advocate that conventional teaching pedagogy in mathematic influenced by web based or computer support learning. A pilot research conducted by Kenney and Newcombe (2011); find that for motivating and helping teacher when there is limitation of funds and training program hybrid learning technique is best. Parsons & Brown (2002); Said that if you want to be an effective teacher to participate in the class, you should always be ready to observe, analyze and interpret the information about the students and use this information for planning and decision making. According to Kaur (2013); concept of blended learning have various perspective like holistic approach, educational perspectives, pragmatic perspective, Corporative Learning Perspective and Chief learning officers (CLO) perspectives with different types of strategies.

Blended Learning

Blended Learning by definition is a mix of virtual and non-virtual interaction between teachers and students, during which the advantages of both instructional approaches are used. Combined learning has provided an advanced place at every level in educational institutions. Its various components help in achieving the desired improvement in the education system. The use of technology in the education system will play an important role in bridging the distance between economic and social realities and influencing the outcomes of the education system. This will be necessary for the era of the knowledge economy with improvement in educational output and the provision of new knowledge and skills of students and trainees. This clearly affects the learning opportunities of a larger and more diverse population far beyond time and geographic boundaries, Perera et al. (2020).

The definition according to Horn and Staker's is that Blended learning is a formal learning program in which a student learns at least through online delivery and time, place, route, instruction as well as at least one supervised brick - and stays away from home. In order to provide an integrated learning experience, each course or subject is linked to each student's learning path.

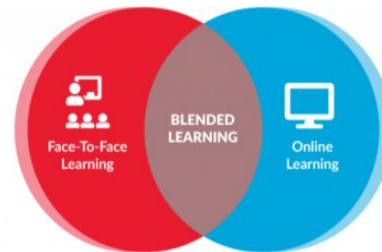


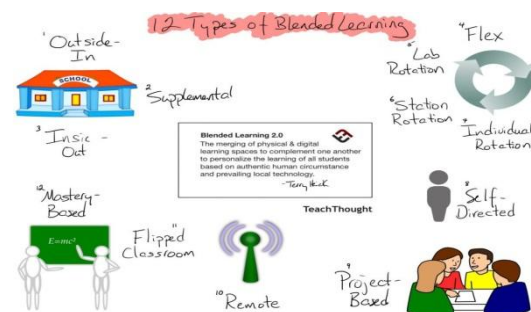
Fig. 1.

An image of Blended learning

To achieve the fourth sustainable development goal on educational quality in all forms of formal and informal education to ensure lifelong opportunities on learning, UNESCO has stressed widely to obtain valuable approach by blended learning. In the lien of blended learning many researchers and eminent academicians has undertaken blended education to be adopted in the emerging scenario of education to replace with "traditional model" (Bonk et al. 2005); or in the initial stage of education curricula as "new norm" (Norberg et al.2011).

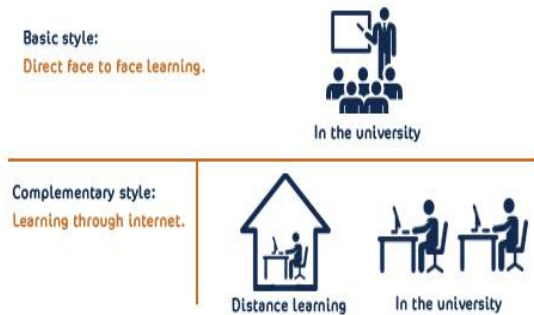
Implementation of Blended Learning System (BLS) in Educational Institutions

The difference between the definition and classification of blended learning is the difference in the application of blended learning. According to the Online Learning Consortium, many institutions adopt the definition of the Online Learning Consortium, formerly known as the Sullivan Consortium was recognized for going and professional organization that specializes in e-learning for undergraduates, with a learning period assumed from 30 percent to 80 percent. Some examples of mixed learning implementations are concise as:



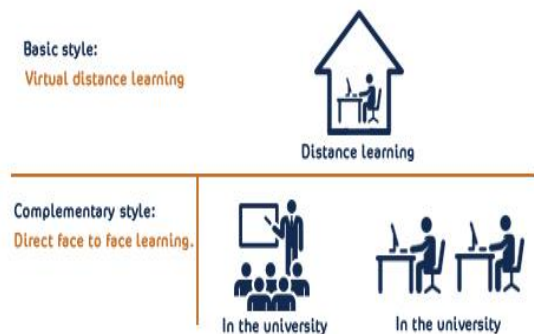
1. Face to Face Model

It is traditional & popular methods to interact with students which are based on direct meeting on daily bases and distributing the curriculum by face to face lectures while using or supporting electronic mechanisms in the classroom used casually for students to complete their certain tasks, (Zhang and Prakash, 2009).



2. Enriched Virtual Model

The basis of this model is virtual-learning as opposed to technology-assisted direct-to-normal models. Electronic learning environment has replaced all kinds of mandatory activities. In this form comprise reading, cross learning, communication and debate through electronic channels. A part from this some additional workshop and some supplementary lecturer/ sessions can be provided on campus for supporting this model.



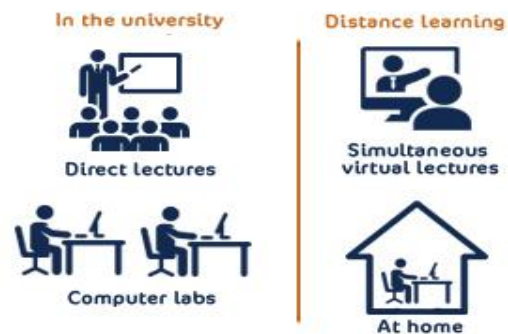
3. Flex Model

Students guide themselves in an electronic environment where course content design and academics are active as part of Flex Learning. A high degree of supervision has taken place over the students learning process where they can learn at their own pace, and the concern faculty support and supervision like small group of study, individual lessons, etc., flexible framework as a demand of learner for completing the program and learning materials.



4. A La Carte Model

In this type of model a student has the window to enroll for courses offered to register themselves through online mode irrespective of the traditional methods of enrolment done within the institutes or universities. It enables the student to design or choose their elective courses according to the credits designed for each course to be successfully complete for those respective courses. When the university cannot offer specific learning opportunities or study choices, a selected model of courses may be an appropriate model.



5. Rotation Model

In this model, a learner has to undergo on the rotational basis to learn its courses either through traditional or online mode of action. It enables the learner to learn in suitable circumstances to forgo with the learning practices frequently. Some features of this learning includes, regular scheduling, wide spectrum of learning by interaction between learner and teacher, interactive sessions, etc (Serva, (2015).

6. Lab Rotation Model

Includes a table that requires students to move between the computer lab and the classroom according to a specific schedule. Teachers collaborate with other experts to help

and guide students in this model as they improve the performance of their activities.



7. Flipped Classroom Model

Teachers rely on changing traditional learning roles through video, audio files, or other media to watch students online at home or elsewhere before taking part in lessons. While lecture time is set aside for discussion, planning, and practice.



8. Forward Blended Learning

Previous learnings are designed to overcome the shell of real classroom behavior. Revealing the unique outputs and required benefits from digital sources. Though the method of learning is forward activity-based blended learning is a suitable example of the forward blended learning model.

9. Backward Blended Learning

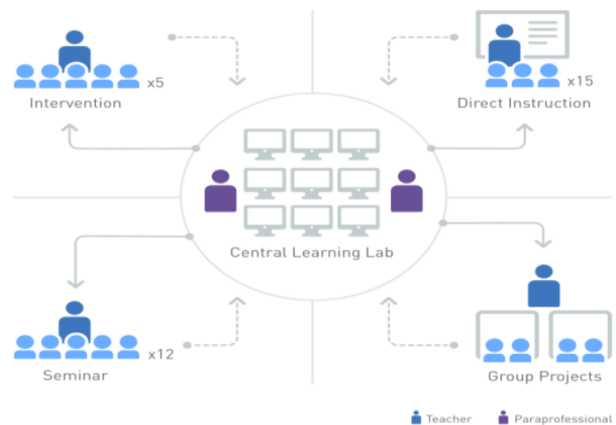
Previous learnings are designed to imitate the learning of students in un-academic environments of digital and non-digital methods of learning. It simply means to adopt the methods of learning "outside side in" explaining the traditional mode of teaching behavior in a core-shell.

10. Activity-Based Blended Learning

In this learning model the learners have the option to choose either from direct access or virtual instructions to fulfill the requirements of their complete their learning activities.

11. Inversed Blended Learning

In this learning model the learners are unable to turn back by adopting a systematic set of schedules design by an instructor. In this model learners have no compulsion to participate in every activity, they participate only in their schedules learning activities.



12. Proficiency-Based Blended Learning Model

The objectives of this PL mode to complete assign activities, assignments, and projects, etc. to participate through online and face to face learnings. Assessment pattern is based upon proficiency learning experiences in which this learner can use face to face or digital assessment.

Opportunities of Blended Learning

Depending upon the different models of Blended Learning, the following are the opportunities listed below that can be drawn from the literature discussed above.

- To enrich both the student's academic practice and scholastic achievement.
- Achieving student aspirations with the maximum benefits of technology as well as developing innovative skills that enable them to enter the labor market.
- Facilitators can personalize their instruction through to use its powerful tools.

- To change the teaching process and improve the skill and knowledge level of the faculty members.
 - To make strong connections between the classroom and real life.
 - To study resources and activities to increase access and flexibility, especially those with work, family, or geographical difficulties.
 - Provisions to reduce the fee of delivering lectures and optimize the use of physical and virtual resources.
 - Increase the level of competition in building a new student market, thanks to innovation in the implementation of study programs
 - Provided variability for students learning pace by modernizing the space and place of learning.
 - Blended learning can be delivered online with help of computers and presently via mobile application by which reduce human contact.
 - Multiple learning strategies can be used through supportive interventions.
 - Maximizing the opportunity to create small groups to do more and more interaction constructively.
 - The ability to recognize the weak area for students and provides different types of e-platform to motivate them.
 - Enables the teachers to find out the gaps between the learnings of students and how successfully they can help them. To resolve the gap in learning, teachers can use digital content and assessment tools.
 - It is proven with evidence that blended learning design provides a bridge between teacher's instructions and digital technology.
 - Innovation and technology have opened the new door for corporate learning and minimize the physical presence of classroom approaches. In present time innovation and technology reduce distance and cost for employees and provide multiple learning modules to enhance their learning capacities.
- necessary technical skills and try to spend more and more time learning by doing. In the process of learning some challenges detailed below inherited in blended learning are:
- The First major challenge of a blended learning model that learners believe traditional classrooms are more effective and knowledgeable compare to online combinations with technology because of traditional behavior. So it is difficult to decide when to opt for face to face interaction and when to go for a web-based method of blended learning.
 - Another challenge for recording the correct assessment report of the online learner. Most of the time after completion online course learners are unable to understand concepts. For these aspects trying to keep progress reports of learner in both ways.
 - Blended learning developers focus more on technology implementation rather than the actual design of leaning contents. Sometimes it's difficult to choose best-blended leaning models for personal interaction due to the complexity of technology.
 - The expectation of the students is not marginal for using technology-based teaching in the classroom rather it is also expected to learn how to use these advanced tools.
 - So they are expecting their teachers to provide guidelines for using technology.
 - As and when students get more familiar with the use of technology their academic and personal rationales tend to their privacy.
 - Due to major advancements and use of ICT many academic institutions are now interested to update their patterns of pedagogy.
 - Lack of technological knowledge, experience, training, skills, etc. do steps behind a faculty member to be comfortable in class with the use of online-based teaching techniques thereby creating the communication barrier in the teaching process.
 - To become a digital literate institution it is desirable by the management to frame transparent policies, methods of teaching, the layout of pedagogy, and successful implementation of the blended learning process in a class. Unsuccessful implementation of these policies or unbalanced methodology if learning may lead to unwanted obstacles.
 - Pedagogy is the key challenge to successfully integrate with the process of blended learning in the teaching process thereby creating the interest of the students

Challenges of Blended Learning

To uncover the challenges of blended learning it is needed to look for upcoming difficulties in effective designing. Blended learning is a technique of mixing traditional face to face interaction with online technology. In the real term, it is very difficult to inculcate shaping efficient blended learning environments. Teachers and students need enough time to acquire new technical skills and well prepares their lecture notes. It should be noted, in the era of digital literacy and the use of soft learning materials for learning one should acquire

to study within the new environment shift from traditional to virtual. To achieve the educational goals it is necessary to develop the pedagogy suitable enough with new methodologies to shadow the process of the blended learning model.

Conclusion

The light of the detailed discussion above, in a nutshell, Blended learning has proven as a highly successful model in various examples of integration in educational systems. The traditional teaching has to be adjusted according to the needs of new "digitally literate" students. Thus successive outcomes of bent learning justified that the teachers acquire technological advantages with minimum effects to achieve the principle of collaborative teaching in pedagogical work. Incorporating nonvirtual teaching with blended technology may unwrap the new advancements in the process of learning system by suspecting the unknown facts and figures concerning the methods of blended learning. Face to Face instruction with blended learning can be provided with better collaborative learning experiences.

Additionally, it is advantageous for teachers and students to actively participate in the process of blended learning resulting to achieve better outcomes for their work and empower them digitally. The shift from traditional to the digital source of learning may seem to be difficult at initial stages but, in due course of time, the regularity of web-based structure enables the learners to find its suitability. Adjacent, in the present scenario of information and communication technologies, artificial intelligence can become a beneficial source in the process of the education system that minimizes the input efforts required in blended learning. The modes of learning discussed above need a period along with the acceptance of learners to welcome the new technological advancements in the system of education.

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