Acceptanceof Cloud Deployed Blended Learning Environment by Students inHigher Education Sector-A Literature Review

Inderbir Kaur

Assistant Professor, GSSDGS Khalsa College Patiala, Punjab,India

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ABSTRACT

In India, the education sector has been always attentive to adopt innovations and techniques in the teaching-learning process due to various challenges. But nowadays, academic institutions are becoming flexible in accepting the new teaching and learning techniques to satisfy the student sector which as cited as the most vital entity in the educational sector. New technologies, tools, and techniques are proving as a boom for innovative teaching and learning practices. One of the emerging teaching technique is Blended learning which is a process refers to "mixing of the different learning environment for educational transfer". It combines the traditional face to face classroom method with online learning method supported by advanced technology and tools. Blended learning should be viewed not only as a temporal construct but also as a fundamental redesign model. Through this content, delivery becomes digital and online. Truly blended learning requires teachers should adopt the approach as guides and mentors and learning should go beyond the classroom walls. Blended learning is also known as Hybrid learning. Although, Indian Government is taking initiatives to implement a blending learning approach yet there is a need to access the behavioral aspect of the students to use this blending learning approach. Adopting a blended learning approach must start with a re-examination of the intended learning outcomes. The deployment of cloud in the blended learning process makes its existence more strong. This study is the review of literature selected to identify the need for blended learning deploy with cloud in the teaching-learning process in the Higher Education Sector.

KEYWORDS: *Blending Learning, Edu-cloud, Hybrid learning.*

INTRODUCTION

The integration of new mobile technologies and online media is proving highly effective in helping students to meet the expectations of the 21st-century learner's community.

A blended learning approach provides an innovative platform for the education sector with a blend of traditional learning and teaching with mobile learning and online activities. Blended learning is seen as a catalyst to the recent advances in education (Inderbir.K,2017). This paper is a synthesis of project work undertaken in schools and higher education institutions. Truly blended learning requires teachers should adopt the approach as guides and mentors and learning should go beyond the classroom walls. Blended learning is also known as Hybrid learning. Adopting a blended learning approach must start with a re-examination of the intended learning outcomes. Although, the Government is taking initiatives to implement a blending learning approach yet there is a need to access the

behavioral aspect of the students to use this blending learning approach.

The institutions in the higher education field are among those sectors which are in great need of new innovative technologies and concepts. One of the attractive and best propositions for higher educational institutions is cloud computing establishment. Cloud computing provides a platform for implementing the blended learning concept in the education sector.

WHAT IS BLENDED LEARNING?

There is a broad spectrum of defining the blended learning concept where any teaching-learning experience integrates the use of ICTs tools, to online curriculum and face-to-face instruction. "A course that blends online and face-to-face delivery. A substantial proportion of the content is delivered online, typically uses online discussions, and typically has some face-to-face meetings." (Inderbir.K,2017).

Blended learning should be viewed as a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment, rather than a ratio of delivery modalities." Dziuban, and Moskal (2011).

According to Graham (2006, p. 5) blended learning is _the combination of instruction from two historically separate models of teaching and learning: traditional face-to-face learning systems and distributed learning systems'.

It is the concept that includes both face to face teaching and teaching-learning processes supported by ICT along with collaborative teaching, computer-assisted learning, group discussions, forums, direct and indirect instruction (Lalima et.al.,2017).

Furthermore, Cloud technology is the technical background behind blended learning. Cloud computing is becoming an adaptable technology in the field of education with its virtualization and scalability concept through which both students and teachers are being benefited. Cloud computing-based Blended-Learning provides continuous and collaborative learning. Cloud computing in an academic environment will be benefitted by all students, faculties, administrators, and research scholars. (Inderbir.K,2017).
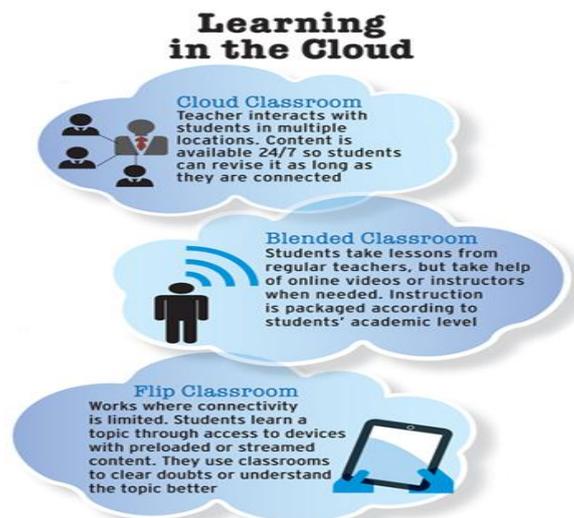

Figure 1: Learning with Cloud

SCOPE OF STUDY

There are lots of limitations in the education sector such as teacher's in-efficiency, non-availability of teachers, and less dedication towards teaching and in-efficient resources.

so there is a huge need for use of technological techniques in the education sector such as blending concepts in the teaching-learning process in developing countries especially in India to deliver and maintain compulsory and quality education. It is proved empirically that classroom teaching combined with technology-mediated learning helps students to gain more understanding of subject matter and explore their cognitive and social skills to a higher level.

WHY BLENDING LEARNING? THE NEED AHEAD… (LITERATURE REVIEW)

A well-designed blended classroom can leverage the power of online courses and free up classroom time for interactive group discussions, collaborations and forums and to solve the queries by maintaining the ethos of the traditional classroom system at the same time.

(Garrison & Kanuka,2004)suggested that a hybrid of face to face interaction along with online delivery mode provides powerful learning outcomes and improves collaborative and independent learning experiences.), a discussion is made of the transformative potential of blended learning in higher education. In this study, blending learning is described in context with higher education challenges. The literature on the potential of information and communication technology to support

meaningful educational experiences of the blending approach has been well documented.

Also, the front end of the blended learning approach i.e. administration and development is discussed in terms of the policy, planning, resources, scheduling, and support. Various organizational and leadership issues are addressed and the outline of an action plan to implement blended learning concepts is presented. At last, the study is concluded with the fact that blended learning is consistent with the values of traditional higher education institutions and has

the proven potential to enhance both the effectiveness and efficiency of meaningful teaching and learning experiences.

(Bonk & Graham,2004)suggested that blended learning is associated with improved pedagogy and easier access to information. (Paechter& Maier,2010;Kasraie & Alahmed,2014;Dias & Diniz,2014)described the positive behavior of the students towards blended learning in universities as they can extend their learning experiences beyond the classroom. Blended teaching-learning environment accommodates students with diversity in a place of different linguistic proficiencies, gender, cultural background, and learning interest and requirements.

(Sun.et.al.,2008;TarhiniA.et.al.,2013;Motaghini.et.al.,2013;Rahman et.al.,2015; Won Sun Chen.et.al.,2016)in their studies emphasized on various factors responsible for the adoption intentions of blending learning among the students. (Sun.et.al.,2008) integrated a framework of six dimensions to examine the intentions of students within a blending learning environment. (Rahman et.al.,2015)in his study depicts the relationship of factors responsible for the adoption of blending learning in education and the students' satisfaction on blended learning. The questionnaire method is used for the collection of data and findings and implications are discussed. Around 500 questionnaires are distributed in the public university of Malaysia out of 400 are found suitable. The model is proposed and the dependent variable student's satisfaction is described in terms of independent variables perceived ease of use, perceived value, learning environment, and student-instructor interaction. All variables are found to be significant. The study mentioned the great need for using the blended environment and depicted future research in that field. While (Won.S.C.et.al.,2016)examined the primary factors in terms of six dimensions and thirteen factors as a learner, instructor, course, technology, design, and environment on perceived e-learner satisfaction towards blending learning. The study is carried out on mostly the young generation in Monash University Malaysia and ethically approved by the Monash University Human Research Ethics Committee. The findings in the studies in (Chen HR.et.al.,2012,Liaw SS.et.al.,2013; TarhiniA.et.al.,2013;Motaghini.et.al.,2013;CalisirF.et.al.,2014;Won.S.C.et.al.,2016;)revealed that perceived usefulness and ease of use are the vital factors for e-learner satisfaction towards blending learning approach. Also, AlibabaEdu-cloud is providing a good platform for learning online content.

(Lailma et.al,2017) in its study depicts that for better implementation of blended learning environment, motivation and right attitude of teachers, students, and management official of the institutions are required along with the handsome budget and rigorous efforts for the technology-oriented education settings. The study discussed the scope of blended learning in the Indian educational system and also emphasized on the scope for collaborative learning, constructive learning, and computer-assisted learning (CAI).

WHY NOT BLENDED LEARNING? THE ISSUES BEHIND.....

- Lack of willingness and enthusiasm in teachers and students to learn blended learning concepts out of the comfort zone.
- Electricity cut-outs, internet problems, and non-availability of backups.
- Lack of immediate response of students as compared to face to face classroom.
- Students might face difficulty accessing the online learning material due to diversity in terms of social background, language and learning needs and interests, and lack of computer knowledge(Abeer,2015).
- Gender and age factors might be another two factors that can hinder the adoption of the blended learning environment as older people show a negative attitude in learning new technologies(Khechine et.al.,2014).
- Less research and literature on addressing institutional adoption issues and to guide institutions in adopting and implementing blended learning in their campus.
- Security and Privacy concerns as technology are involved.

RECOMMENDATIONS FOR IMPLEMENTING THE BLENDED LEARNING(BL) CONCEPT IN THE EDUCATION SECTOR

1. Full dedication is required from teachers, students, educational authorities, and management officials for proper implementation of the BL environment.

2. A positive attitude is a key factor and the requirement for BL in the education sector. The right attitude of parents, students, and teachers towards blended learning concepts is the foremost requirement. Again, to boost up the right mindset of parents, students, teachers, and society towards this BL approach, seminars, awareness programs, group discussions, and forums should be organized. Also social and mass media can be proved a miracle for this.

3. A well-planned design is required for the implementation of the BL environment in an educational hierarchy from top to bottom.

4. A handsome budget should be sanctioned by the Government at the national-level implementation of BL in education. Also, NGOs, private, industrial, and corporate sectors should come forward to provide funds to educational institutions to groom their students for the global market.

5. To make teachers comfortable and well trained to use technology in their teaching-learning process, the training programs must be oriented for the teacher towards the BL process.

6. Proper management of finance and efforts must be there in the right direction for implementing BL settings in the education sector.

7. Special methodology and design of the BL environment program should be there for the special students such as blind, deaf, and dumb and physically challenged students.

8. The sincere efforts are required in primary, secondary as well as in higher institutions to set up a good BL approach in the education sector.

9. Special attention, efforts, and funds should be provided to rural sector schools or institutions for setting up of BL environment.

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