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Scope of Blended Learning in Higher Education - A Conceptual Perspective

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Abstract: ***Blended learning is an innovative concept of shifting information and transfer of paradigm from teaching to learning. Blended learning includes traditional teaching (offline learning) and ICT supported learning (online learning). It encourages collaborative, constructive and computer assisted learning (CAI). BL necessitates the learner to be responsible discover, construct, practice and validate the acquired knowledge through social collaboration, peer group and teachers. Blended learning desires rigorous efforts, right attitude, good budget and highly motivated teachers and students for its successful implementation. The present paper attempts to make a study on the concept of blended learning, features, prerequisite, adaption, implementation, challenges and strategies.***

Keywords: Blended Learning, ICT Supported Teaching Learning Process, Traditional Teaching Learning Process, and Computer Assisted Learning.

1. Introduction

Blended Learning is a combination of different approaches of delivery, models of teaching and styles of learning which are exercised in an interactively meaningful learning environment. Blended Learning is a combination of online and classroom learning activities with optimal use of resources in order to improve student learning outcomes and to address important institutional issues (Garrison, 2004). Blended Learning is defined as a gradual integration of thoughtfully selected and complementary face -to-face and online approaches and technologies (Graham, 2006). In general terms, blended learning combines the online delivery of educational content with the best features of classroom interaction and live instruction in such a way as to personalize learning, allow thoughtful reflection, and differentiate instruction from student to student across a diverse group of learners (Watson). Blended learning incorporates direct instruction, indirect instruction, collaborative teaching and individualized computer assisted learning.

1.1 The main features of Blended learning:

a) Face to face teaching- blended learning provides scope for traditional classroom teaching where students get time to interact with their teachers and thus get influenced by their personality, behavior and value system. Face to face interaction is highly motivating for both the teachers and students and it gives a human touch to the process.
b) Student interaction with course content- traditional mode of teaching and the campus provides student time to interact directly with their course content through printed material whereas ICT mediated learning provides them indirect interaction with their course content.
c) Peer group interaction- inside the campus students learns by formal means and they also learn informally when they interact with their peer groups.
d) Group discussion and exchange of ideas- classroom teaching not only provides students interaction with teachers but well-designed discussions on different aspects and exchange ideas.
e) Accessing e-library- this is a part of ICT supported teaching learning in blended learning.
f) Virtual classroom- this provides student an option to learn anywhere, anytime and from anyone. Students can be a part of a virtual classroom meeting with his co-students and teacher in cyber space irrespective of the geographical boundaries.
g) Online assessment- immediate feedback is a key factor in learning as it motivates the learner and is based on principles of readiness. Online assessment helps to make evaluation system more formative, transparent and more fast. It is also more reliable and objective.
h) E-tuitions- students have different needs. Few students require personal guidance and complete attention. Such students choose the option of e-tuition that is meeting a private tutor and getting personal guidance in cyber space via video conferencing.
i) Accessing and maintaining educational blogs- Educational blogs are a good platform to discuss topics of importance that are not part of syllabus like those related to social problems, political issues, and other issues relevant to youths like drugs addiction, delinquency, population education etc.
j) Webinars- webinar is an also a feature of blended learning that is ICT supported format. It means that students participate in seminars on different topics relevant to them via internet. All the participants are connected through different software's available like Skype, Google talk etc. and then present their paper and participate in discussions through video conferencing.
k) Viewing expert lectures in YouTube- blended learning provides student to watch lectures of renowned experts from different fields that are available on YouTube. In addition to it college can also upload video of lectures by its own teachers so that if student have missed their classes can avail this facility.
l) Online learning through videos and audios- various recordings and animated videos are available that explain various concepts in an interesting way. They

are based on the principle of realism connected to life.

m) Virtual laboratories-it can be used in professional courses where the laboratory work is very crucial and sometimes the cost of establishing a well-furnished laboratory is not feasible and in few cases the experiments are dangerous and not safe for students to handle. The videos provided relating to the content and sharing on blogs and visiting e-books provide new and updated perspectives to the content. All these constructions when blended in one frame are known as blended learning.

1.2 Prerequisite of Blended Learning

Implementing blended teaching is not an easy task. It requires certain fundamental preparations in all the elements of teaching learning process- teacher, student, content designing, and infrastructure. The following are the basic requirements for implementing a successful blended learning.

1) Well trained teachers- Teachers should be well acquainted with the concept of blended learning and fully trained and skilled to blend both types of approaches- tradition and technological. Teacher should know how to utilize blogs, YouTube facility, software like Skype, goggle talk and others for video conferencing and social networking sites for educational purposes.
2) Teachers with scientific attitude- it is very important that teachers have scientific attitude. They should have good observation and problem solving skills; and also optimistic. Scientific attitude will help the teachers to deal positively with failures and help to analyze the conditions objectively.
3) Teachers with wider outlook and positive approach towards change –should be ready to accept innovative and dynamic changes.
4) Complete facilities like well-furnished computer lab, internet connection, provision for video chatting- Blended learning largely depends on infrastructure, a well-furnished computer lab, internet facility and Wi-Fi campus.
5) Formative evaluation and continuous internal assessment- higher educational bodies should be ready to completely implement continuous internal assessment(CAI) and other tools of formative evaluation like online examination for making the system more flexible.

These are few essentials and basic requirements without which the blended learning cannot be executed successfully.

1.3 Adapting Blended Learning in India

Higher education in India has grown over a period of time and the (GER) in higher education of India has increased from 20.8% in 2011-12 to 25.8% in 2017-18. Lack of learning materials, teachers, remoteness of education facilities, high dropout rate, digital divide, literacy limitations, financial constraint, changes (increases) in student enrolment numbers (which is a global phenomenon), global technological developments, and competition among HE institutions are major causes for adaptation of blended learning in India.

1.4 Implementation of Blended Learning in Indian Education System

Implementation of blended learning needs complete dedication on the part of educational authorities and managements of educational institutes. Educational institutes for blended learning will have to increase their educational budgets by taking the help of NGOs and also coordinating with the industrial and corporate sector.

The other very important issue that has to be considered is developing the right type of attitudes towards this ground-breaking concept for all those who are concerned with the educational system.

Awareness programmes like seminars, conferences, workshops and publicity for change in attitudes for parents, community, teachers and students, seminars should be organized. Mass media could be utilized in this endeavor and for the proper implementation of blended learning.

1.5 Challenges of Blended Learning

a) Access to education- There exist infrastructure, socio-economic, linguistic and physical barriers in India for people who wish to access education (Bhattacharya and Sharma, 2007).
b) Quality of education- This includes infrastructure, teacher and the process quality. The resources allocated by Central and State Governments are scare.
c) Skill acquisition –Skills are imperative for the economic development of a country. We have to give more emphasis to skills acquisition for production and management besides knowledge.
d) Managing instructional complexity- In blended learning the instructor has a wider choice of delivery mediums to combine. With wider choice also comes greater complexity and pressure on the instructor and designer. This is due to the variety of combinations of technology and possibly the lack of patterns to follow for that particular mix. These issues need to be addressed and taken into account during the design.
e) Designing. Designing a blended learning course that maximizes the potential of the instructional design perspective requires a re-evaluation of teaching and learning to blend or harmonize the distinction between both the face-to-face and online components.
f) Managing roles and responsibilities. Unlike traditional classroom learning in which there usually is a single instructor, in blended learning, there are multiple individuals, each taking a role in the blend. Clarification of instructor and assistant roles is essential for success and the reduction of potential conflict and learner confusion.
g) Creating a smooth learning experience. Good communications among instructors during planning is an important element in the success of blended learning.
h) Meeting expectations- Managing expectations for instructors and learners is also important to realistically perceive the benefits during the training or course.
i) Controlling costs- The cost savings of ICT introduction

in blended learning still remains in theory while it seems that the greatest pedagogical advantages of ICT are the most costly: personalization, real-time communication and other advanced functionalities lead to significant costs.

1.6 The challenges identified from the perspectives of students, faculty and administrators are outlined below:

1.6.1 Challenges from learners' perspective

a) Expectations of less work: Students do not perceive time spent in lectures as "work," but they definitely see time spent online as work.
b) Lack of time management skills: Time management are become particularly a acute struggle for students in a blended course.
c) Self -Responsibility for learning: Students are accustomed to be passive learners in a traditional course. But in blended learning active learning role will have to be played.
d) Know how to use technology: Students enrolled in a blended learning course ought to be techno-savvy to access online component of the course and communicate with the faculty to make learning more effective.

1.6.2 Challenges from faculty perspective

Faculty Challenges that require additional education or support, or both include (Rockwell et al., 2000):

- Developing interaction
- Developing instructional materials
- Applying selected technologies
- Marketing the course
- Developing effective technology skills
- Assistance or support needs (with on-line course design and delivery)

From a faculty perspective, the key challenges of teaching in a blended format are: (a) the time commitment, (b) lack of support for course redesign, (c) difficulty in acquiring new teaching and technology skills, and (d) the risk factors associated with this type of course (Voos, 2003; Dziuban & Moskal, 2001; Garnham & Kaleta, 2002).

a) Time commitment: There is lot of time required for designing and delivering a blended learning course as compared to traditional class room teaching learning. The increased time commitment involved in a blended course is regarded as the number one challenge by faculty (Dziuban & Moskal, 2001). Johnson (2002) stated that planning and developing a large enrollment, blended course takes two to three times the amount of time required to develop a similar course in a traditional format.
b) Professional development of faculty: Faculty to teach blended learning course need to be well conversant with new emerging technologies in designing such course and in delivering media.
c) Acquiring new teaching and technology skills: Faculty have to overcome their own fears and resistance through "hands-on" experience with various tools and applications.
d) Other major risk factors identified by faculty who have taught blended courses include; fear of losing control over the course, lower student evaluations, and an uneasiness about how this type of learning model fits into the university culture of teaching, research, and service (Dziuban & Moskal, 2001; Voos, 2003).

1.6.3 Challenges from the administrative perspective

The following administration related issues are of paramount importance and have to be tackled effectively to make blended learning effective:

a) Alignment with institutional goals and priorities: Twigg (1999) suggested that blended learning can only be effectively implemented only if an institution is committed to improve the quality of the student learning experience in a cost effective manner. This implies that institution has to be committed for fully integrating computing into the campus culture. Barone (2001) added that this goal can only be realized if an institution's leaders act affirmatively through proper resource allocation and necessary policy revision.
b) Resistance to Organizational change: Resistance to organizational change in higher education is a well-documented phenomenon (Twigg, 1999; Barone, 2001). Institutional bureaucracy and apathy can prevent changes in the curriculum, course structures, timetables and new strategies which are critical to the success of blended learning.
c) Lack of experience with collaboration and partnerships: Lack of a collaborative organizational structure and internal partnerships can pose a formidable barrier to a blended learning initiative (Dziuban et al., 2004). Decisions must be made in a consultative fashion and communicated widely for a blended learning model to be successful (Barone, 2001). There must be significant cooperation through partnerships with students, faculty, instructional technology staff, faculty developers, and administrators to succeed (Twigg, 1999).

2. Blended Learning Strategies

Many researchers have proposed that the shift should focus on knowledge construction which will enhance, not replace, the traditional information transfer paradigm (Warschauer, 2003; Etheris and Tan, 2004). Social learning is a major enabler of the knowledge construction paradigm: active collaboration among human peers is supported by using different kinds of collaboration technologies and especially, enhanced presence. Human learning is a social process, through sharing and executing tasks in order to reach a common goal. In this context learning is not an isolated activity (Hung and Nichani, 2001).

Blended learning should be approached as a fundamental redesign of the instructional model with the following characteristics:

1) A shift from lecture to student centered instruction in which students become active and interactive learners (even during face-to-face contact sessions)
2) Increase in interaction between student-instructor, student-student, student- content, and student-outside resources.
3) Integrated formative and summative mechanisms for students and instructors.

There are many methods to choose from:

a) Live Classroom Method (Traditional)
Traditional classrooms allow instructors and learners to be face-to-face in the same place. The subjects usually consist of topics (complex, broad, programmatic or new content) that require face-to-face interactions, expert observation, culture building, team building, networking, business problem solving or materials to be presented by an instructor or facilitator.

b) Virtual Classroom Method
A virtual classroom allows instructors and learners to be different places at the same time, and allows the instructor to archive the event for later viewing. These events are usually conducted via virtual meeting tools.

c) Live Demo or Practice (labs) Method
This method is used when team-based practice is critical to understanding of complex hardware and there is excess capacity of live product and instructors for in-person training.

d) Broadcast (TV or Streaming Video) Method
There is rapid distribution of information to widely dispersed group by this method.
Business will benefit from professional quality broadcast recording. This method is used when Content needs to be created quickly, but will not be updated frequently.

e) Interactive Chat Session Method
Consider using this method when Learners have divergent needs that cannot be met by 'one- size-fits-all' instruction and Expert resources are available for one-to-one information sharing and support.

f) Online Information via Web site Method
This Method is to be used when basic concepts, policies, procedures and information needs to be available to widely dispersed audience over an extended period.

g) Online Instructional Materials Method
This method is suitable to geographically dispersed learners who demand rapid acquisition of new skill. Learners should have the right technology to access content and practice at own pace and resources should exist to maintain and update content. Content can be linked to other learning resources.

h) Online Reference Materials Method
Consider using this method when learners are geographically dispersed and they demand rapid acquisition of new skills and maximum learning schedule flexibility.

i) Offline Instructional Materials Method
This Method is to be used when small number of learners makes distributing content easy. There is relatively long shelf life for content. Basic concepts, policies, procedures, corporate information never changes and does not need to be communicated widely.

j) EPSS Electronic Performance Support system (EPSS) Method
In this method content supports users developing software application skills and Learner benefits from on the job access to context-sensitive support.

k) Threaded Discussion Method
This method is suitable for learners who have divergent needs from the content that cannot be met by one-size-fits-all instructions. Expert resources are available for group information sharing and support. Learners need to enter discussion at different times and be able to catch up on conversations that have occurred.

l) Product Simulation Practice (Virtual lab) Method
Consider using this method when Learners can't easily access live systems and need for trained users are greater than systems available for training.

m) Live Practice Method
This method is useful for small, geographically centralized learner population. It provides access to repeated practice. It encourages team work to use and learn new skills.

n) Simulation-Based Practice Method
Consider Using This Method when complete comprehension is critical before live application

o) Written Tests Method
The Goal of this method is to test knowledge and information recall. Case study analyses are good indicators of job performance.

p) Performance Tests Method
Trained Observers are deployed to observe performance or analyze work products in this method. It is used when physical performance of a skill or behavior is required outcome of the training.

q) Self-Assessments Method
This method should be used in concert with more formal measures.

r) Books Method
Books are Inexpensive, consistent and pleasantly tangible, portable, easy to transport and readily available. There is high comfort level since everyone knows how to navigate.

The strengths of each method can be brought together to create synergy and increased effectiveness.

3. Conclusion

To conclude, it can be said that blended learning to some extent is a solution to the qualitative and quantitative learning outcomes in our educational system. If implemented in a well-planned, organized manner, with the right attitude it can become the future of our educational system. Blended learning can also prove to be a powerful strategy if learning expectations are well designed to accomplish the desired outcome of stakeholders. It has the potential to impact Indian higher education in a positive way by forming at the bottom a transformational model which once and for all embraces expectations from students, faculty and administrators.

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