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## LEARNING OUTCOMES AND CHALLENGES IN BLENDED LEARNING

**S. SELVAKUMAR**

Ph.D. Scholar (Education),  
Alagappa University,  
Karaikudi, Tamil Nadu, India

**Prof. P. SIVAKUMAR**

Dean, Faculty of Education,  
Alagappa University,  
Karaikudi, Tamil Nadu, India

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**Abstract**

*The general notion of technology in education is reflected in the design, preparation and other pedagogical materials for Educational Institutions. There are many advantages of using Information and Communication Technology in the pedagogism process. Classroom innovative practices are becoming the center of attention and solely replacing the traditional approaches because of futuristic demands and needs of the higher education. Blended Learning is the integration of both traditional and novel teaching –learning processes, and has shifted the culture of teaching – learning from instructor- centered to becoming student – centered. Blended learning is one of e-learning models integrating an online course and face to face classroom by optimizing the use of Information Communication Technologies as instructional media in order to enhance the teaching and learning experience for the students and teachers. The blended learning environment also offers the opportunity to use time in a more effective and flexible way by extending instruction time out of the class walls. Blended Learning gives students the opportunity to receive personal attention while retaining the much-needed (for some) control provided by the face to face classroom environment. In this paper a discussion has been carried out about the capabilities, learning outcomes, and challenges in blended learning.*

**Keywords:** *Blended Learning, New traditional Approach, Best of both worlds, instructional strategies, Teaching and Learning processes, Capabilities of Blended Learning, Two key Learning Experiences.*

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**Introduction**

In our India's context, the Information and Communication technology in Education is in a nascent stage. The general notion of technology in education is

reflected in the design, preparation and other pedagogical materials for Educational Institutions. ICT helps to develop simulated programmes in education and Virtual learning environments, which are designed to depict the real time experiences without the danger, cost effectiveness and time needed to experience the actual event. There are many advantages of using Information and Communication Technology in the pedagogism process. There are no longer geographical boundaries for learning any content or concept. More right is given to the learner to select appropriate path of education. A wide range of forms of teaching and learning that incorporate the use of ICT with the face to face learning. A stronger learning environment has emerged with combining the strongest aspects of the few available approaches to remove the deficiencies of conventional learning and web based learning. This new learning approach is blended learning. The term blended learning is used to describe learning that mixes a range of event-based activities, including face to face classrooms, live e-learning and self- faced learning. This learning is not just adding materials and educational documents across the internet, but it should be associated and needs a teaching entry which suits the characteristics of learners and scholarly subjects. Blended learning can also be defined as integrating face to face learning and E-learning. In this paper a discussion has been carried out about the Capabilities, learning outcomes and challenges in blended learning.

### **Offer Alternate Opportunities**

The advancement of Information and Communication Technologies (ICTs) has enabled the younger generations to be well equipped with technological devices such as smart phones and Tablets. In view this technological shift, the sector has integrated the application of ICTs in education resulting in the establishment of e-learning platforms; competitive global institutions of higher education were under significant pressure to expand their delivery of courses through e-learning platforms. Past studies have shown the adaptation of e-learning to be effective in connecting people and resources, facilitating active learning, deepen understanding, enhancing critical thinking skills as well as promoting creative communication. Classroom innovative practices are becoming the center of attention and solely replacing the traditional approaches because of futuristic demands and needs of the higher education. The rapid growth of Information Communication Technologies providing various features and tools has encouraged researchers and teachers to design an interesting learning environment for the students. Blended learning is one of e-learning models integrating an online course and face to face classroom by optimizing the use of Information Communication Technologies as instructional media in order to enhance the teaching and learning experience for the students and teachers. According to Wyse and Jones (2008), the growth of ICTs is one of the most significant areas of change in modern society. So ICT is an important part of the development of

learning and teaching. If ICTs as useful tools which, with appropriate pedagogy can enhance learning and teaching.

### **New Traditional Approach**

Teaching is a systematic, planned sequence of events that facilitates the communication of an idea, concept, or skill to a learner. The act of teaching requires an understanding of learning and an understanding of the individual and environmental factors that affect the learner (Duffy & Mc Donald, 2011). Therefore, it certainly needs a mature design relating to planning, implementation and evaluation of instruction. Seels and Richey in Ibrahim and Sidik (2013) defined that design is process of specifying conditions for learning involving (1) instructional systems designs, (2) message design (3) instructional strategies and (4) learner characteristics. A good planning and design is vital for any course (Bath, Debra & Bounce, John, 2010) In recent years, blended learning, a convergence of e-learning and face-to-face learning, has emerged to be a promising alternative learning approach compared to conventional e-learning approach. Graham argued the blended learning to be the "New Traditional Approach" in education because it maximized the best advantages of face-to-face and e-learning approaches. Nevertheless, learners' intentions to continue to use blended learning were strongly influenced by their satisfaction. In order to evaluate the potential success of educational design based on novel technologies, it was essential to understand the learners' attitudes, perceptions as well as their level of acceptance and satisfaction.

### **The Best of Both Worlds**

Blended Learning is the integration of both traditional and novel teaching-learning processes, and has shifted the culture of teaching-learning from instructor-centered to becoming student-centered. The learning activity is more active compared to lecturing in the classroom, and students are facilitated by the instructor to be more active in solving problems independently. Mortera-Gutierrez (2005) mentioned that blended learning is the combination of multiple approaches to learning, combining several based courses or computer communication practices and traditional face-to-face instructions. Poon (2014) stated that there are numerous definitions of blended learning and the common definition is the combination of learning with physical and virtual environments. The blended learning environment also offers the opportunity to use time in a more effective and flexible way by extending instruction time out of the class walls. Educators have been excited by the potential of the blended design that provides new possibilities to face-to-face education including spending less money on travel, extending course availabilities, diversifying learning benefits and eliminating some social and psychological barriers (Beard & Harper, 2002; Guidera, 2004). Blended learning is defined as the thoughtful integration of classroom face-to-face learning experiences with online learning experiences (Garrison & Kanuka, 2004). The significant

concept in blended learning method is to cover the various learning needs of the learners who have multi learning styles and preferences.

Blended learning is realized in teaching and learning environments where there is an effective integration of different modes of delivery, models of teaching and styles of learning as a result of adopting a strategic and systematic approach to the use of technology combined with the best features of face to face integration. (Krause, 2007)

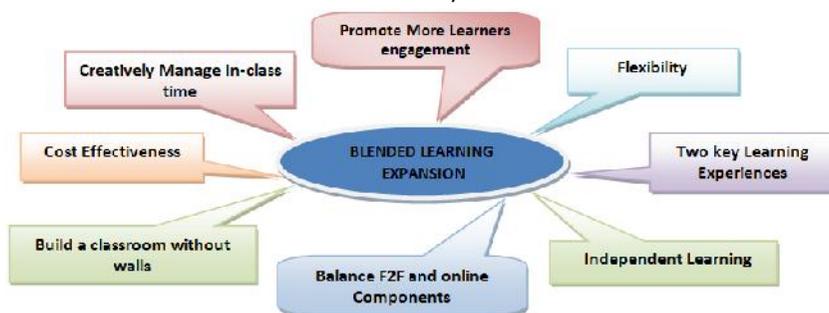
### **Capabilities of Blended Learning**

Ali Mohammad Ahmadi Gharachen, Zohreh Esmaeili, Mehran Fara jollahi and Mohammad Jamalzadeh (2015) Studied on “ Presentation of Blended Learning Conceptual Pattern Based on Individual and Social Constructivism theory”. This study suggested the some capabilities of on Blended learning, which are listed out below,

- **Rich Learning Experience:** one of the most important characteristics of blended learning is pedagogical development. In blended learning, (Sel Leurir 1910) more influential pedagogical experiences are created. It is clear that richer learning experiences of the students result from using both on-line and face to face learning. Blended learning increases the level of student –student learning strategies, learner – centered learning strategies, self inspiration, and self direction, sense of responsibility, critical thinking and creativity. (Graham 2005, Bati, et,al 2009, Turen 2003, Jons, et, al 2003, Gebra 2010, Kadric, Lan and March 2009)
- **Prominence on dynamic learning:** among other features of blended learning is encouraging active learning in students. (Lindsay, 2004) An influential learning experience requires active involvement of the students.(Alberts, et, al 2010) As Huvis Bazic, et al (2009), Suren (2003), Stacy (2009), Rooset, Doglis and Frazy(2003) and Graham (2005) stated that successful and comprehensive learning requires active participation in learning process. The most important feature of blended learning is that the students are actively involved in learning content and materials individually and collectively through on –line and face to face methods.
- **Development and Variety of the amount of Interactions and Communications:** another feature of blended learning is the expansion and variety of interactions and communications in curriculum. (Deziban, Hartman and Muskal 2005; Vingard, 2005) Simultaneous communication and interaction styles which are electronic or face to face and those which are electronic but asynchronous provide more opportunity and time for reflection and thinking; students can share their knowledge and evaluate their idea and thoughts (Manson, 2010).
- **Supporting diverse learning:** blended learning increases the power of choose appropriate communication devices. Therefore, students can interact and communicate with classmates, professors and educational content in different ways. From this point of view, blended learning plays an important role in attracting

the students and making them active through different learning and communications styles. (Pip 2010).

- **Meaning full and constant learning:** Mackdonald (2008) , Orbich, et, al(2011) and Lindsay (2004) stated that since in compound learning, we have asynchronous sessions, face to face interaction, web content, on-line evaluation and tests, e-mail, video conferencing, power point slides, telephone, audio, video equipments, printed materials, virtual and face to face lectures, digital Whiteboards, these different multimedia equipments are in more conformity with individual differences and learning styles. This results in more attempt and development and brings about meaningful and constant learning.
- **admittance to content and educational resources and flexibility:** according to Jonson (2002), Mak (2000), Fung (2007), Orbich, et, al (2011) and Hang, Zoo and Vang Kary (2006) in blended learning, the students use different on-line and face-to-face methods and strategies; therefore, they benefit from various presentation methods that exist in a learning purpose.
- **The opportunity of getting appropriate feedback:** in blended learning, the quality and quantity of feedback can play an important role in the success of the students since feedback can be provided on line and face to face. (Albertso, et, al) blended learning environment can provide the possibility of fast and timely feedback for the teacher. The teacher has the opportunity to provide feedback and guidelines through communication devices clearly and coherently (Kushi, 2010 as quoted by Seragi and Ataran 2011).
- **The possibility of lifelong study:** blended learning tries to make the students have self-study. The preliminary activities are provided in on-line and face to face learning environment. Therefore, by acquiring essential skills and qualifications, they have constant learning during the term and even after graduation (Deziban, Hotman and Muscal, 2004, Bunk, Kim, 2005).



### Rationale for Blended Learning Expansion

#### The Challenges of Implementing Blended Learning

According to Schellens (2004), the design of a learning environment is very important for stimulating and supporting student. However, major drawbacks in

integrating e-learning into education included high initial costs for preparing content materials, substantial cost for system maintenance as well as students' feeling of depression and isolation in virtual environment. In addition, the low completion rates of e-learning courses and the important of instructor- student and student- student interactions in classrooms have subsequently suggested that e-learning alone was unlikely to be the most effective strategy for teaching and learning. Hence, questions related to learners' satisfaction and effectiveness in e-learning approach were raised.

There remain some obstacles in designing online learning (Karadeniz,2009) such as designing the content based on video, animation, or simulations, and the lack of time in developing the content. Lecturers usually encounter difficulties in delivering the course in blended learning, and those who are not well- trained will encounter difficulties in the teaching- learning process. Besides, another challenge is the limited access to videoconferences and content because of low bandwidth on the network. One Australian institution faced a challenge while applying the blended learning approach on students, mainly because this country has large and more remote and regional areas. The internet broadband and capacity of downloading in those areas is limited (poon, 2014). Therefore, the quality of the Internet usually becomes a common issue in applying technology- based learning. Furthermore, not all the students and lecturer are aware that the utilization of technology media is important in the teaching and learning processes. To facilitate and motivate students to learn independently while outside the class also becomes another obstacle for teachers. Some lecturers are unable to boost students' motivation to use technology as instructions. Then, some studies have reported that, in the use of blended learning for learning activities, not all students are able to study independently the content provided. For example, students stop to watch video lectures posted on website or LMS because of uninterested and tedious (Woo, Gosper, McNeill, Preston, Green, & Phillips, 2008). Although there are prospective benefits, transitioning from traditional face-to-face course to blended learning courses can be challenging for both students and faculty. Thus the following challenges are identified in implementing blended learning.

- Blended learning professional development is not just about showing teachers how to use tools and technology in their classrooms; rather, it is about preparing teachers for deep changes in the nature of teaching and learning.
- Another obstacle from a faculty perspective, designing and teaching a hybrid course for the first time is challenge.
- Designing a course with appropriate workload for the students, designing out of class activities that have relevant connection with in-class activities and that support in class activities and outcomes.

- Students may face in a hybrid course is the use of multiple technologies. If multiple technologies are used inside and outside the classroom, a student who is not technically competent may feel frustrated and lost, especially in the beginning
- The technical skill level of students may be a key challenge to implementing blended learning.
- In addition, Sait et al.(2003) reported that instructors with limited skills in internet usage were hesitant in using any technology in their teaching. In order to address this issue extensive tutorials, support services, and a helpdesk are a sought for both students and teachers.
- Implementation of a blended learning are many processes, tools, and trainings that need to be pulled together to enable teachers and students to thrive in classrooms. This challenging, time-intensive work requires dedicated attention and resources and specific skills.
- Perceptions relate to attitudes towards innovation and change, time required for implementation, workload, Level of institutional support, available technology infrastructure, instructional delivery methods and quality assurance should be considered.

### **Learning Outcomes in Blended Learning**

**Mugenyi Kintu and Chang Zhu (2016)** were suggested the following sub themes in connection with the learning outcomes in blended learning environment.

**Intrinsic motivation:** Intrinsic motivation is considered as a learning outcome because it is used to measure the learners' experiences with regard to the experimental tasks set in the blended learning intervention. Emotional feelings of anxiety, nervousness and tension among learners taking part in blended learning environments can negatively influence their intrinsic motivation. The state of learner anxiety for instance, can result from, among other factors, the utilization of learning management systems or the tasks to be attempted therein (Saade and Otrakji 2007). Doing work with ease, fun, enjoyment and competence have been found to indicate learners' motivation (Kremenska 2009) and call for examination in this study to establish the success of a blended learning intervention.

**Knowledge construction:** The process of learning from others as a way of knowledge construction in online learning produced results through learners exchanging ideas as well as sharing information (Rahman, et al 2011). High levels of knowledge construction were found in a doctoral program in which the instructor had well designed learning programs and assigned roles reared towards learner acquisition of their own knowledge,(Lai 2013). Helling and petter (2010) reported a situation whereby learners were able to post opinions to questions that were initiated by instructors in task descriptions.

**Satisfaction:** Naaj, Nachouki and Ankit (2012) noted that the satisfaction of learners under learning environments is the baseline requirement in order for a successful

implementation plan. Reliable and accessible equipment in terms of technology is vital for learner satisfaction, (Bower & Kamata 2008). The planning of the course content and its teaching in blended learning environments are known to lead to learner satisfaction (Debourgh 2003). Jones and Chen (2008) found out that the course instructor kept learners up- to- date and gave prompt feedback and that learners made extra effort to interact with the instructor as compared to a traditional classroom. In many studies have indicated satisfaction through some aspects do not measure to perfection in some other studies (Giannousi et al 2009; Jones and Chen 2008)

**Learning Performance:** Comparisons of learner performance while doing traditional face- to- face instruction and blended learning have previously shown that blended learning instruction yields better performance (Hill, Chidambaram and Summers, 2013) although the contrary has also been found out in other studies (Brown and Liedholm 2002).

More learning outcomes are identified and listed below

- Students become more resourceful, more informed and constructed or discovered their own learning paths. Thus, ultimately producing better work outputs.
- Increased system knowledge of how to incorporate and utilize ICTs into better learning and teaching practices raised expectations and fruitful outcomes for students.
- Access to infrastructure assisted both students and instructors to achieve better learning outcomes through flexible access to experts and content instruction.
- Learners become better connected to their learning environments both in school and beyond the school. This included peers, teachers and coaches globally and locally.
- By using variety of tools as images, films, gamification and digital portfolios they are able to create evidence that demonstrated deeper conceptual understanding, knowledge and enquiry.
- The portability of ICTs gadgets and ease of sharing the learning outputs through a range of online options extended learning opportunities well beyond the classroom walls via blogging, forums, online conferencing and discussion boards.

## Conclusion

E-learning to be integrated in addition to face to face learning in blended learning environment has been regarded as more effective alternative to face to face alone education or e-learning alone many institutions implemented e-learning as part of the blended learning to meet learners need. Therefore, it is equally essential to capture the learners' perceived satisfaction to determine the effectiveness of this learning approach. Blended Learning gives students the chance to receive personal interest while retaining the much-needed (for some) control provided by the face to face classroom environment. Simultaneously, students are building independence through

learning with technology (Temoi, 2010). Besides that, blended learning offers the possibility of changing our attitudes not only as to where and when take place, but in terms of what resources and tools can support learning and the ways in which these might be used (Littlejohn and Pegler, 2007).

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