



## "BLENDED LEARNING: PARADIGM SHIFT TOWARDS TRANS DISCIPLINARY TEACHING-LEARNING"

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### Abstract :

*This paper focus on blended learning study by understanding the relationship between student- teacher relationship and its learning outcomes. It is aimed at determining the factors having impact on Teaching-Learning of blended learning. Education is one of the areas that are experiencing astonishing changes as a result of the encroachment and use of information technology. Mobile and e-learning are already facilitating the teaching and learning experience with the use of modern channels and technologies. Blended learning is a prospectiveresult of advanced technology based learning system. The charm of blended learning approach lies in the revision of technology aided learning methods in addition to the existing traditional based learning. With the introduction of technology, the overall learning as well as teaching experience is considerably boosted by covering negative aspects of the traditional approach. In this research paper, a blended learning model for higher education where traditional classroom lectures are supported via e-learning. Index Terms- Blended learning, Assessment, Online learning, Traditional learning.*

**Key words:** *Teaching-Learning, Education, Online learning, Traditional learning, Blended learning, Assessment.*

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### Introduction :

Blended learning required immediate feedback to the students for their performance which can be achieved by combining assessment technique with the use of latest technological advancement. It is an instructional methodology, a teaching and learning approach that combines face to-face classroom methods with computer mediated activities to deliver instruction. This pedagogical approach means a mixture of face-to-face and online activities and the integration of synchronous and asynchronous learning tools, thus providing an optimal possibility for the arrangement of effective learning processes. Blended learning is the term given to the educational practice of combining digital learning tools with more traditional classroom face to face teaching. In a true blended learning environment, both the student and the teacher should be physically located in the same space. Despite this, the digital tools used should be able to be utilized by the students in order to enforce some control over the speed or topics of their learning. The flipped classroom model is a similar program that aims to utilize technology in order to rearrange the learning



experience and maximize the effectiveness of valuable face to face time in the classroom. In a flipped classroom programed, students would be encouraged to access digital learning materials via a cloud-based learning platform during their own time. Resources such as video lectures, podcasts, recordings and articles would be provided in order to transfer the main bulk of the necessary knowledge from teacher to student before each class. This then frees up time in class for teachers to support students in activities, lead discussions and facilitate engagement. Blended learning techniques provide teachers to deliver the lecture as well as assess student learning using creative and innovative methods. Assessment is a very vital tool for determining the student's knowledge for the subject they enrolled at any levels of education. Assessment determines how the teacher teaches the course and how student understood the course. Assessment is no doubt one of the major tools in teaching and learning process. In this paper we discussed Blended learning and its assessment techniques, also, we discussed issues in blended learning environment along with its advantages.

### **Definition:**

In a report titled “Defining Blended Learning”, researcher Norm Friesen suggests that, in its current form, blended learning “designates the range of possibilities presented by combining Internet and digital media with established classroom forms that require the physical co presence of teacher and students”.

### **Review of Literature:**

This review presents research about blended learning effectiveness from the perspective of learner characteristics/ background, design features and learning outcomes. It also gives the factors that are considered to be significant for blended learning effectiveness. The selected elements are as a result of the researcher's experiences at a Ugandan university where student learning faces challenges with regard to learner characteristics and blended learning features in adopting the use of technology in teaching and learning. We have made use of Loukis, Georgiou, and Pazalo (2007) value flow model for evaluating an e-learning and blended learning service specifically considering the effectiveness evaluation layer. This evaluates the extent of an e-learning system usage and the educational effectiveness. In addition, studies by Leidner, Jarvenpaa, Dillon and Gunawardena as cited in Selim (2007) have noted three main factors that affect e-learning and blended learning effectiveness as instructor characteristics, technology and student characteristics. Heinich, Molenda, Russell, and Smaldino (2001) showed the need for examining learner characteristics for effective instructional technology use and showed that user characteristics do impact on behavioral intention to use technology. Research has dealt with learner characteristics that contribute to learner performance outcomes. They have dealt with emotional intelligence, resilience, personality type and success in an online learning context (Berenson, Boyles, & Weaver, 2008). Dealing with the characteristics identified in this study will give another dimension, especially for blended learning in learning environment designs and add to specific debate on learning using technology. Lin and Vassar, (2009) indicated that learner success is dependent on ability to cope with technical difficulty as well as technical skills in computer operations and internet navigation. This justifies our approach in dealing with the design features of blended learning in this study.



Studies shows that student characteristics such as gender play significant roles in academic achievement (Oxford Group, 2013), but no study examines performance of male and female as an important factor in blended learning effectiveness. It has again been noted that the success of e- and blended learning is highly dependent on experience in internet and computer applications (Picciano & Seaman, 2007). Rigorous discovery of such competences can finally lead to a confirmation of high possibilities of establishing blended learning. Research agrees that the success of e-learning and blended learning can largely depend on students as well as teachers gaining confidence and capability to participate in blended learning (Hadad, 2007). Shraim and Khlaif (2010) note in their research that 75% of students and 72% of teachers were lacking in skills to utilize ICT based learning components due to insufficient skills and experience in computer and internet applications and this may lead to failure in e-learning and blended learning. It is therefore pertinent that since the use of blended learning applies high usage of computers, computer competence is necessary (Abubakar & Adetimirin, 2015) to avoid failure in applying technology in education for learning effectiveness. Rovai, (2003) noted that learners' computer literacy and time management are crucial in distance learning contexts and concluded that such factors are meaningful in online classes. This is supported by Selim (2007) that learners need to possess time management skills and computer skills necessary for effectiveness in e-learning and blended learning. Self-regulatory skills of time management lead to better performance and learners' ability to structure the physical learning environment leads to efficiency in e-learning and blended learning environments. Learners need to seek helpful assistance from peers and teachers through chats, email and face-to-face meetings for effectiveness (Lynch & Dembo, 2004). Factors such as learners' hours of employment and family responsibilities are known to impede learners' process of learning, blended learning inclusive (Cohen, Stage, Hammack, & Marcus, 2012). It was also noted that a common factor in failure and learner drop-out is the time conflict which is compounded by issues of family, employment status as well as management support (Packham, Jones, Miller, & Thomas, 2004). A study by Thompson (2004) shows that work, family, insufficient time and study load made learners withdraw from online courses.

Learner attitudes to blended learning can result in its effectiveness and these shape behavioral intentions which usually lead to persistence in a learning environment, blended inclusive. Selim, (2007) noted that the learners' attitude towards e-learning and blended learning are success factors for these learning environments. Learner performance by age and gender in e-learning and blended learning has been found to indicate no significant differences between male and female learners and different age groups (i.e. young, middle-aged and old above 45 years) (Coldwell, Craig, Paterson, & Mustard, 2008). This implies that the potential for blended learning to be effective exists and is unhampered by gender or age differences.

Research shows that absence of learner interaction causes failure and eventual drop-out in online courses (Willging & Johnson, 2009) and the lack of learner connectedness was noted as an internal factor leading to learner drop-out in online courses (Zielinski, 2000). It was also noted that learners may not continue in e- and blended learning if they are unable to make friends thereby being disconnected and developing feelings of isolation during their blended learning experiences (Willging & Johnson, 2009). Learners' Interactions with teachers and peers can make blended



learning effective as its absence makes learners withdraw (Astleitner, 2000). Loukis, Georgious and Pazalo (2007) noted that learners' measuring of a system's quality, reliability and ease of use leads to learning efficiency and can be so in blended learning. Learner success in blended learning may substantially be affected by system functionality (Pituch & Lee, 2006) and may lead to failure of such learning initiatives (Shrain, 2012). It is therefore important to examine technology quality for ensuring learning effectiveness in blended learning. Tselios, Daskalakis, and Papadopoulou (2011) investigated learner perceptions after a learning management system use and found out that the actual system use determines the usefulness among users. It is again noted that a system with poor response time cannot be taken to be useful for e-learning and blended learning especially in cases of limited bandwidth (Anderson, 2004). In this study, we investigate the use of Moodle and its tools as a function of potential effectiveness of blended learning.

The quality of learning management system content for learners can be a predictor of good performance in e-and blended learning environments and can lead to learner satisfaction. On the whole, poor quality technology yields no satisfaction by users and therefore the quality of technology significantly affects satisfaction (Piccoli, Ahmad, & Ives, 2001). Continued navigation through a learning management system increases use and is an indicator of success in blended learning (Delone & McLean, 2003). The efficient use of learning management system and its tools improves learning outcomes in e-learning and blended learning environments.

It is noted that learner satisfaction with a learning management system can be an antecedent factor for blended learning effectiveness. Goyal and Tambe (2015) noted that learners showed an appreciation to Moodle's contribution in their learning. They showed positivity with it as it improved their understanding of course material (Ahmad & Al-Khanjari, 2011). The study by Goyal and Tambe (2015) used descriptive statistics to indicate improved learning by use of uploaded syllabus and session plans on Moodle. Improved learning is also noted through sharing study material, submitting assignments and using the calendar. Learners in the study found Moodle to be an effective educational tool.

### **Objectives of the Study:**

1. To Study the concept of Blended Learning
2. To Study various blended Learning models and its role in Higher education
3. To Study the role of Teacher and learners in blended learning environment.
4. To Study the impact on blended learning during pandemic.

### **Blended Learning :**

#### **Role of Teachers in BL Environment:**

BL shifts the teacher's role from knowledge provider to coach and mentor. This shift does not mean that teachers play a passive or less important role in students' education. Quite the contrary—with BL, teachers can have an even more profound influence and effect on students' learning. Traditionally, classroom instruction has largely been teacher-



directed, top-down, and one-size-fits-all, with a bit of differentiation thrown in, but with BL, it now becomes more student-driven, bottom-up, and customized, with differentiation as a main feature. Much of this new learning dynamic is due to the enhanced role technology plays in instruction. BL provides an appropriate balance between online instructions, which offers the interactive, tech-based learning, individualized pacing, and privacy that keep students continuously engaged and motivated, and teacher-led instruction, which personalizes the learning experience and adds the human elements of encouragement, compassion, and caring guidance that only teachers can give.

### **Role of a Learner in the BL Environment:**

#### **Increase student interest:**

When technology is integrated into school lessons, learners are more likely to be interested in, focused on, and excited about the subjects they are studying. Keep students focused for longer: The use of computers to look up information & data is a tremendous lifesaver, combined with access to resources such as the internet to conduct research. This engagement and interaction with the resources keeps students focused for longer periods than they would be with books or paper resources, this engagement also helps develop learning through exploration and research.

#### **Provides student autonomy:**

The use of eLearning materials increases a student's ability to set appropriate learning goals and take charge of his or her own learning, which develops an ability that will be translatable across all subjects.

#### **Instill a disposition of self-advocacy:**

Students become self-driven and responsible, tracking their individual achievements, which helps develop the ability to find the resources or get the help they need, self-advocating so they can reach their goals.

#### **Promote student ownership:**

BL instills a sense of 'student ownership over learning' which can be a powerful force propelling the learning. It's this feeling of responsibility that helps the feeling of ownership.

#### **Allow instant diagnostic information and student feedback:**

The ability to rapidly analyze, review and give feedback to student work, gives the teacher the ability to tailor his teaching methods and feedback for each student while improving time efficiency.

#### **Enables students to learn at their own pace:**

Due to the flexibility of BL and the ability to access internet resources allows students to learn at their own pace, meaning a teacher can help speed up the learning process or give more advanced resources if necessary.


**Blended Learning Models:**

|                                | Why   | How   |
|--------------------------------|---|---|
| <b>Skill-Driven Model:</b>     | Learning specific knowledge and skills requires regular feedback and support from the Trainer, facilitator, or peer.          | <ul style="list-style-type: none"> <li>create a group-learning plan that's self-paced but bound to a strict schedule</li> <li>pad self-paced learning material with instructor-led overview and closing sessions</li> <li>demonstrate procedures and processes through synchronous online learning labs or a traditional classroom setting</li> <li>provide email support</li> <li>design long-term projects</li> </ul> |
| <b>Attitude-Driven Model</b>   | Content that deals with developing new attitudes and behaviors requires Peer-to-peer interaction and a risk-free environment. | <ul style="list-style-type: none"> <li>hold synchronous Web-based meetings (Webinars)</li> <li>assign group projects (to be completed offline)</li> <li>conduct role-playing simulations</li> </ul>   |
| <b>Competency-Driven Model</b> | To capture and transfer tacit knowledge, learners must interact with and observe experts on the Job.                          | <ul style="list-style-type: none"> <li>assign mentors</li> <li>develop a knowledge repository (LCMS/LMS)</li> </ul>   |

**Sample Course Structure:**

| <b>Semester II:</b> | <b>5 courses</b>                                   | <b>Credits</b>                               | <b>Classroom Hours</b> |
|---------------------|--|--|------------------------|
| <b>Courses:</b>     |  |  |                        |
| 201                 | Instructional System Design: Theories and Models   | 4  | 60                     |
| 202                 | Research Methodology                               | 4  | 60                     |
| 203                 | eLearning  | 4  | 60                     |
| 204                 | OER Development                                    | 4  | 120 (60) *             |
| 205                 | Instructional Strategies for Face-to-face learning | 4  | 60                     |
|                     |  | *Practical course, so double number of hours |                        |



Course 204 is an optional course, which can be skipped by the students and instead any 4-credit SWAYAM course can be completed. Remaining 4 courses can be taught using BL mode.

**BL opportunity is being exploited in the following manners by each of the course teachers:**

1. Teacher A teaching course 201 is teaching 50% modules in online mode. There are 4 modules in this course, so 2 modules are dealt in online mode.
2. Teacher B teaching course 202 (Research Methodology) is teaching all 4 modules in Blended Mode allowing students to access online resources, complete activities in online mode for about 30 hours and be in the classroom for total 30 hours. These 30 classroom hours are being utilized for several activities, trouble-shooting, solving queries on the reader view of contents, problem-solving, etc.
3. Teacher C teaching course 203 (eLearning) has allowed students to join a MOOC on eLearning. While students are completing this external MOOC, teacher C has also joined this MOOC to keep track of teaching-learning happening in the MOOC. S/he is conducting a few activities, confirming students' regular access to MOOC and completion of assignments, discussing and allotting group activities in the class as well in online mode. Students are submitting assignments of the teacher C simultaneously in online mode and attending classes on the campus only for 25% of the total hours, i.e. there are only 15 campus hours for this course.
4. Teacher D is dealing with OER development course (204). S/he needed to assign a separate weightage of hours for every module. Last 2 modules require more lab hours where students themselves are developing the entire OER using the studio of the institute. The previous 2 modules aim at their own explorations of free tools and they can work more from home. As per teacher's plan, students spend 80% time in online mode for module 1 and 2, whereas 40% time online and 60% time in the classroom is spent for module 3 and 4. Average 30% of the total time is spent in the classroom for this course.

However, all teachers A, B, C and D have submitted this proposed weightage to the institution for information.

**Conclusion:**

In recent years, it has been harder and harder to educate students in the age of social media. Gone are the days when students would be docile and compliant while sitting and listening to a teacher lecture for an hour. How do teachers in the classrooms compete with upbeat music, realistic photos, flashy videos, and friends there to like and share content with all from the palm of students' hands? How do you harness these features and bring all of this to the classroom? Now add the barrier of high school students who are delayed in their progression toward graduation and a diploma because many of them got caught up in the frenzy of being social. As the director of a dropout-prevention and re-engagement center, I am addressing this dilemma every day. One way we address re-engaging students in school is through blended learning. Like many educators, I leapt into the world of virtual learning last spring due to COVID-19 school closures. While some teachers have spent years immersed in the world of technology, many of us were adjusting to sitting behind a screen and figuring out how to best translate the benefits of in-person learning to the virtual world and how to use technology-supported instruction to enhance student learning.


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**Cite This Article:**

**Dr. Komal Bodhwani, (2022).** "Blended Learning: Paradigm Shift Towards Trans Disciplinary Teaching-Learning". *Aarhat Multidisciplinary International Education Research Journal*, XI (II), 103-110