

Blended- Learning Approach for Ethiopian Education System: In Case of Second Generation University

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ABSTRACT

Ethiopian Higher Education Institutions (HEIs) are striving to provide effective learning experiences to address the needs of the digitally-oriented generation of learners. Blended learning has emerged as a solution to address these needs and has been adopted by various universities in developed country. However, not all Ethiopian second Generation University adopts blended-learning. Blended-learning refers to the systematic integration of online and face-to-face engagement to support and enhance meaningful interaction between students, teachers and resources. Blended learning offers many potential advantages and disadvantages that will largely depend on the quality of the learning design and model. Blended learning gives students with special educational needs the benefits of both online learning and in-person instruction. The paper proffered workable recommendation for implementing a blended-learning environment. In conclusion, the paper recommends that since Ethiopia is one of from developing countries must be intentional about skills acquisition so as to be well equipped to join their counterparts in other developed climes to play a significant and principal role in the ever dynamic sophisticated learning environment.

Keywords : Blended, Blended-Learning, Online Learning, Face-To-Face Learning.

I. INTRODUCTION

The purpose of learning is to improve and develop the quality of learning. In order to develop the quality of learning, one should select, establish and develop an optimum learning method to achieve desired outcome (Degeng, 1991). Reigeluth (1983) defines learning design as a process to determine which learning methodology that works most effectively so that learners experience change of knowledge and skills towards the expected direction. Furthermore, Reigeluth (1983) also uses the term blue print for learning design and the blue print for learning is developed in the same prose's as an architect designs a building and bridge; the design of the building should match the blue print.

In order to develop learning design, one should also analyze future trends in learning especially those related to learning strategy and content. There is a tendency that learning strategy has been shifted from traditional learning method to future learning, which is called the era of knowledge, where learners can learn anywhere be it in the classroom, library or at home, anytime be it in the morning at school, in the afternoon or in the evening, from anyone that means learners can have various learning sources i.e. lecturers, experts, practitioners or the society and by any means which means learners can use numerous types of learning media, for example the internet, CDs, radio, television, laboratory or their own experience.

The kind of learning that combines various learning sources and modes is currently called blended learning which is derived from the word "blended" which means combination or mixture and "learning" which means to learn or study. The real and most general meaning of blended learning refers to learning activity that combines or mixes face-to-face learning and computer-based learning (online and offline). Thorne (2003) describes blended learning as it represents an opportunity to integrate the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning.

The findings of Purcell, Boxall, and Wright's study (2009) about the contributions of blended-learning components show that the learning components with the most contribution in blended-learning are assignments, textbooks, face-to-face presentation, and face-to-face lecture with instructors. Online learning video has also had contribution towards learning while online textbook gives average contribution towards learning. Even though they have a relatively low contribution toward learning, the learners argue they use video and online textbooks for learning occasionally.

In higher education, blended learning usually consists of once-a-week face-to-face lecture where learners use online learning to finish their projects or other assignments (Molenda & Boling, 2008).

The objective of developing blended learning is:

- (a) To achieve the purpose of learning in any circumstance,
 - (b) To change the pattern of learning from teacher-centered to learner-centered learning,
 - (c) To balance learner's learning independence as well as to motivate learners to achieve learning discipline (Murphy, 2003) and learning management,
- (1) to facilitate access to knowledge, (2) to improve

learning interaction, (3) personal agency, (4) cost effectiveness and (5) to ease revisions of learning materials (Osguthorpe & Graham, 2003). It means blended-learning is a strategy that takes the advantage of the two learning modes, conventional learning (face-to-face) and computer-based learning, be it online or offline learning (Collis & Moonen, 2001). Therefore, the combinations of both learning methods (online and conventional) bring more effective learning and facilitate access to learning (Murphy, 2003). Kurtus (2004) states that "blended learning is a mixture of the various learning strategies and delivery methods that will optimize the learning experience of the user." It contains the definition that blended learning is combination of various learning strategies and methodologies that will eventually enhance learning experience for the learners.

Having achieved a problem-solving ability, an individual can overcome both similar and different obstacles he or she encounters in the real-life (Gagne, 1985). Until recently, the type of learning adopted by most of education institutions in Indonesia is teacher-centered where teacher or lecturer becomes the major source of learning. However, since the printing technology has been discovered, most of learning sources are in the form of textbooks. Hence, the development of audio and audio-visual technology, computer, the internet and mobile phone (smartphone) in the 21st century enables the development of learning media using those gadgets. However, most teachers in various types and stages of education have yet used themselves and textbooks as the sources of learning. In order to develop learning that takes the advantage of technology as various learning sources, a sensitive learning model that combines learners and technology called blended-learning-based model should be developed.

The findings of Dwiyoogo's (2013; 2014) studies show that the most current trends in learning is one that combines face-to-face, offline (computer interactive) and online (internet) learning. The traditional, face-

to-face learning has recently been shifted towards the offline and online learning, and at the same time online learning, for example distant learning, has started to be combined with face-to-face meeting. Thus, teacher's ability to manage learning should be directed towards blended-learning. Based on the data from the respondents, 11% of the respondents have understood the concept of blended-learning, 41% of them have yet heard about blended-learning and 48% of the respondents learn and become familiar to blended-learning from the study. Related to the need of developing blended-learning-based problem-solving learning, 97% of the respondents agree to the blended-learning-based problem-solving learning development. The remaining 3% disagrees since they are about to retire in a short time so they do not feel the need to learn blended learning concept; limited school facilities is another reason why the respondents disagree to the learning concept. Their hesitation to using technology as an integral part of learning can be traced back to the requirements to keep themselves updated with the most current trends in technology.

II. Statement of the Problem

Ethiopian education system is suffering from various problems like failing to expand the system to provide provision of free and compulsory education to all students, abating to maintain quality along with increasing the quantity, education curriculum is not able to meet demands of international market and not even able to conserve and propagate Ethiopian value system, teachers are not fully dedicated towards their profession and teacher's inefficiency is adversely influencing the learning of the students. There is an urgent need of some radical steps and major revolutions within to overcome the challenges. Blended learning to some extent will help in solving these problems of Ethiopian education system.

III. Literature review

The concept of blended learning is derived from two words, *blend* and *learning*. The word *blend* means combining things and *learning* denotes an assimilation of new knowledge as explained by Olivier (2011). Blended learning allows students to engage in learning outside the confines of the classroom; with synchronous tools, such as web conferencing, Skype and group chats, and asynchronous tools that include discussion boards, blogs and social networking sites (Singh, 2003). There is no single commonly accepted definition of blended learning, but practitioners "negotiate their own meaning" according to the needs of their contexts of practice (Heinze, 2008: 8). The absence of a universal definition for blended learning allows HEIs to contextualize the concept according to their respective environments. Hence, this study adopted the definition of blended learning used by the university involved in the case study concerned, which is, "the mixture of traditional delivery including: lectures, group discussions, apprenticeships and experiential learning, together with e-learning methods, which accommodate various learning needs of a diverse audience in a variety of subjects" (University A, 2009: 1). There are, however, opposing views about delineating the concept of blended learning. For instance, Oliver and Trigwell (2005) caution against the use of the term blended learning primarily because it does not incorporate the perspective of the learner, and because it considers blending from a lecturer's point of view. Another common objection to blending, cited by Jackson (2011), is that aiming for a coherent blend of learning provided through a variety of delivery mediums and instructional techniques is hard he reckons that it will take some careful thought and planning to achieve this. Moreover, only a handful of learners fully engage with all the elements of blended learning, so it is not worth the effort (Jackson 2011).

Despite the various and sometimes contradictory definitions of blended learning and the different challenges involved in implementing blended learning, HEIs are striving to adopt blended learning because of the potential it has for transforming higher education and engaging students in more meaningful learning experiences (Garrison and Kanuka, 2004).

The advancement of technological innovation in HEIs has necessitated the formulation of new policies, strategies and improvements in infrastructure. Despite all these supporting enterprises instituted by HEIs, the adoption of blended learning depends, in part, on the perceptions an academic staff member has about the use of technology in teaching and learning. Oh and Park (2009), Alebaikan (2010) and Fresen (2010) concur that perceptions held by academic staff can have an impact on the adoption and success of blended learning within institutions. From the literature reviewed, we concluded that some of the barriers to the adoption of blended learning by academic staff are their own adequate or inadequate computer skills, lack of time to prepare new and appropriate teaching and learning materials, students' restricted access to technological resources and, among academic staff members, a lack of innovative teaching strategies to address the digital generation of students (Benson, Anderson and Ooms, 2011) points out that most academic staff members use technology for inter alia, research, academic writing and communication, but few use it for teaching. She concludes that successful technology adoption, therefore, depends on the perception of an individual academic staff member.

For a better understanding of barriers to and perceptions about the adoption of blended learning, the Technology Acceptance Model (TAM) (Davis, 1993) was employed to explore the perceptions of academic staff that affect the adoption of blended learning in the Faculty of Education at University A. Additionally, the Innovation Diffusion Theory (IDT) (Rogers, 1983) was utilized to categories academic

staff members according to their rate of blended learning adoption.

IV. Study Methodology

This report highlights a pilot study that is in progress currently in order to understand the depths of the problem statement and propose a possible working solution model. The pilot study is being carried out in two main phases.

✓ Carrying out a review of existing literature and choosing a case university, the pilot study tries to establish the gap in the existing literature and in practice where the universities are concerned in integrating and adopting blended learning approach.

In addressing the problem statement, a mixed-method approach is used that includes qualitative exploratory case study research design (McMillan & Schumacher, 2010), face-to-face informal interviews to understand teachers' perceptions of adoption of blended learning and secondary data review. A mixed method approach has been used in an effort to understand the types of existing barriers that universities perceive as obstacles to adopting blended learning and pose possible solution model.

✓ In the next phase, the pilot study proposes to develop the final model and put the solution for the existing problem regarding with teaching learning system of Ethiopian education system.

V. Applicability of Adapting Blended-Learning in Ethiopia for second generation university

✚ In our country due to large population the formal education system is not able to provide equal educational opportunities to all student in good way, so blended learning will be a good option as it will make the area of educational opportunities wider and education will be able to reach all students of the university in the same time

- ✚ The technological and scientific development continuously demands the education system to match their pace and correlate with them so that students are able to cope up with the fast changing market. Technology and scientific field are most dynamic and changing at great pace incorporating new innovations so the content transmitted to students have to be revised accordingly but in Ethiopia curriculum are generally not so frequently revised and updated. so if blended learning will be adapted students and teachers can easily update their knowledge and skills
- ✚ Dearth of good teachers is also a major issue. Teachers are less in number, still many second generations are not having appropriate teacher pupil ratio, this problem exist not only in government sector but private institutes are in a similar state. There is another serious issue that teacher working are also not very dedicated towards the profession so blended learning is a good option as online learning can be a substitute of teacher
- ✚ Generally problem of indiscipline, irregular attendance and dropouts etc. exist because our traditional mode is not able to cater individual demands of every student and is not making the delivery of this content interesting for the students. Moreover course is not focused, students are not confident and secure of their future so this unrest and stress leads to the problem of indiscipline but blended learning will be a combo solution to all these problems. As discussed above blended learning provides variety of experiences to the students , make them active and they remain in focus of teaching learning process due to increased involvement and bearing the responsibility of their learning themselves make students more disciplined. And as blended learning is giving students more upgraded and quality education that is from dynamic resource so learning thus becomes more purposeful.
- ✚ Educated students are also not efficient and skilled to meet the demands of global market so suffer unemployment but as discussed above the blended learning will help students to master all modern techniques and life skills that will help them in leading a successful life
- ✚ The education of special student also poses problems but blended learning with its diversity can easily cater to the needs of special student. like those who are brilliant can satisfy their thirst of knowledge in blended learning, blind students can easily be educated in blended learning as ICT supported teaching learning process will provide technical support in their learning, similarly physically challenged can also become part of main stream education and get enrolled in good institutes without bothering about the distance as blended learning will help them study online and from home.
- ✚ The quality of education largely higher education is also a serious issue. None of our higher education institutes are among the top institutes of the world so to exist in the completion and to enhance quality adopting blended learning will be a good option. When students will get experience of both types of modes their knowledge will enrich. Reaching the experts and content material available online our students will gain advanced skills that will make them strong eligible candidates of good jobs. These exposures will surely overcome the limits in the syllabus designing or methodologies.
- ✚ Similarly another problem in our education system is that it is failing to develop in students right value system and love toward Ethiopia education system and tradition as it is adopting itself in modern technologies but blended learning gives equal importance to traditional mode and classroom teaching and thus can give students essence of Ethiopian education system.

A. Analysis between Traditional Learning Environment and Blended Learning Environment

Table 1. Comparison between Traditional Learning and Blended Learning

<i>N</i> <i>o</i>	<i>Traditional Learning Environments</i>	<i>Blended Learning Environments</i>
1.	Teacher centered instruction	Student centered instruction
2.	Single sense stimulation	Multisensory stimulation
3.	Single path progression	Multipath progression
4.	Single media	Multi- media
5.	Isolated work	Collaborative work
6.	Information delivery	Information Exchange
7.	Passive learning	Active/exploratory/inquiry based learning
8.	Factual, knowledge-based	Critical thinking and informed decisions
9.	Reactive response	Proactive / planned action
10.	Isolated, artificial context	Authentic, real-world context

- ✓ Access to global resources and materials that meet the students' level of knowledge and interest.
- ✓ Self-pacing for slow or quick learners reduces stress, increases satisfaction, and information retention.
- ✓ Blended learning allows more effective interactions between the learners and their instructors through the use of emails, discussion boards and chat room.
- ✓ Blended learning could improve the quality of teaching and learning as it supports the face-to-face teaching approaches.

Advantages of Blended Learning for Students

- ✓ **Increase student interest:** when technology is integrated into university lessons, learners are more likely to be interested in, focused on, and excited about the subjects they are studying. Subjects that might be monotonous for some like math and science, while also increasing information retention.
- ✓ **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 blended Learning 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.

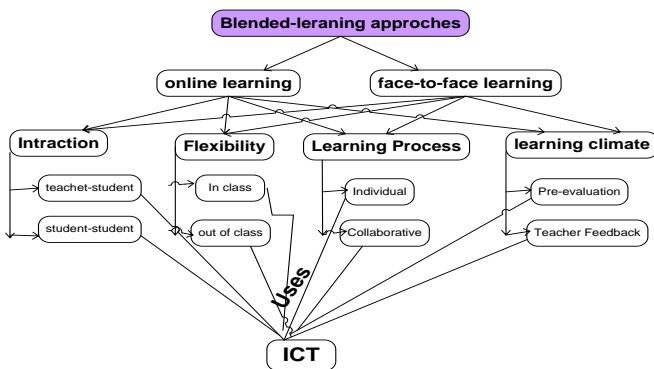


Fig. 1 The blended learning model

B. Advantages of Blended Learning for Teachers

- ✓ Teaching is less expensive to deliver, more affordable, and `saves time.
- ✓ Blended learning offers flexibility in terms of availability. In other words, blended learning enables the student to access the materials from anywhere at any time while enjoying the benefits of face-to-face support and instruction.

- ✓ **Promote student ownership:** Blended learning 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 blended learning 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.
- ✓ **Prepares students for the future:** Blended learning offers a multitude of real-world skills that directly translate into life skills.

C. Challenges of implementing blended learning approaches in Ethiopian second generation University

Among the most significant challenges of implementing blended learning:

- ❖ Limited knowledge about online learning and as a result limited interest in it.
- ❖ Limited economic resources in our countries that do not allow investing in the technology infrastructure, content development and teacher training needed for implementing online learning.
- ❖ Lack of governmental vision and leadership to develop policies for implementing and providing online learning.
- ❖ Lack of governmental funding and encouragement of investments for implementing online learning programs.
- ❖ Need for teacher's training and professional development in online education.

VI. Conclusion

Blended-learning is a platform that provides institutions with means of improving teaching and learning activities. It enhances students-teacher relationship and provides students with means of interactions among themselves. This paper highlighted the importance of Blended-learning to Ethiopian educational institutions for second generation university and also describes challenges to develop these approaches.

The study makes the following recommendations:

1. Blended-learning platform should be employed at various levels of educational institutions.
2. Government and education regulatory bodies should enforce the adoption of Blended-learning platforms in addition to conventional teaching mode.
3. Government should commit more funding for higher education institutions to enable them to undertake training programs for students and academic staff, develop ICT infrastructures and facilities, and procure more computers and other related materials necessary for a reliable internet and network system.
4. The universities should open a dialogue within the academic community about the Blended-learning and its merits. Academic staff must bear a particular responsibility for beginning a dialogue about their own educational programs, examining their willingness and ability to restructure their programs, courses, and assessment procedures in hosting Blended-learning.

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