NEW PARADIGM AT UNIVERSITY OF ESWATINI: IS BLENDED LEARNING THE FUTURE OF TEACHING-LEARNING SYSTEM IN THE DIGITAL TRANSFORMATION CONTEXT?

Chandraiah Esampally

University of Eswatini.

ABSTRACT

The COVID-19 pandemic has not only disrupted the current education system, but it has also redefined the landscape for higher education, such as teaching and learning in general and open distance learning in particular. On the other hand, this disruption has compelled all educational institutions to think about possible future requirements relevant to the changing context for teaching and learning in terms of accessibility, availability and affordability of internet facilities required for wide access and equity to quality education. Educational institutions are slowly moving towards Blended Teaching-Learning and Examination, which is changing the perception of learning among students. However, the benefits and facilities for Blended Learning (BL) were not yet realized by many educational institutions at the time COVID-19 forced them to explore new methods of teaching and learning. In addition, there was an absence of a long-term strategy or direction for Blended Teaching-Learning policy in many educational institutions all over the World. As part of its strategic plan, the University of Eswatini has started implementing the Blended Teaching-Learning system to maintain learning continuity, ensuring quality education during the COVID-19 crisis.

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CORRESPONDING AUTHOR: Prof. Chandraiah Esampally, Coordinator-Academic, IDE University of Eswatini, Kwaluseni. Email: esampally@uniswa.sz, esampallyc9@gmail.com; Tel: 78659368.

INTRODUCTION

The global outbreak of the COVID-19 pandemic has spread worldwide, affecting almost all countries and territories. The outbreak of COVID-19 was first identified in December 2019 in Wuhan, China. As the world grapples with the pandemic, institutions of higher education contend with how to maintain continuity of learning, while also keeping their teaching staff and students safe from infections. Educational Institutions all over the world are slowly moving towards blended teaching-learning and examination system, since digital technologies unlock the ability of every student to personalize and customize the learning experience. This is referred to as Open distance and Online learning. It means the full-time education system is changing the perception of learning among students towards blended teaching-learning system, which all Open and Distance education institutions have been following. As such, the difference between full-time education and open distance education system is marginal.

REVIEW OF RELATED LITERATURE

Online education received worldwide attention in March 2020 when schools and universities were compelled to suspend face-to-face classes due to the impact of COVID-19 pandemic. As of July 2020, 98.6% of learners worldwide were affected by the pandemic, representing 1.725 billion children and youth from pre-primary to higher education in 200 countries (United Nations, 2020). As a result, educational institutions frantically shifted lessons or courses to e-Learning platforms. Even before the outbreak of COVID-19, the e-learning industry was already making a mark in the education sector, and was hailed as the next important revolution in learning. Between 2012 and 2018, the annual growth rate of e-learning among United States college students was 5.30%, with at least 35.3% of higher education students reported to be enrolling in at least one distance and e-learning course (Digest of Education Statistics, 2019).

Many findings on blended learning studies show an increase in learners' ability to learn collaboratively, think creatively, study independently and tailor their learning experiences to meet their individual learning needs (Cleveland-Innes & Wilton, 2018a). Online learning is the new generation in the evolutionary growth of open, flexible, and distance learning. Flexibility and convenience are two of the most important deciding factors students use when choosing between online learning and traditional face-to-face classroom instruction. A study done by Pokhrel and Chhetri (2021a) on pedagogy for continuing education through online reveals that there is a paradigm shift in the way educators deliver quality education, through various online platforms. Transitioning from traditional face-to-face learning to online learning is an entirely different experience for learners and educators, and they must adapt to it with no other alternative. The education systems and educators adopted *Education in Emergency* through using various online platforms for which they were not prepared. According to Pokhrel and Chhetri (2021b) there are certain limitations of online learning, such as the weakness of the online teaching infrastructure, limited exposure of teachers to online teaching, the information gap, non-conducive environment for learning at home, equity and academic excellence in higher education.

RESEARCH METHODOLOGY

This is a descriptive research study, which draws from experience. It also gathered data through discussions from 22 lecturers in UNESWA. According to Manuel and Medel (1976), descriptive research involves the description, recording, analysis, and interpretation of the present nature, composition, or process of phenomena. The focus is on the prevailing conditions, on how a person, group, or thing behaves or functions at the time of the study.

Secondary data with regard to blended learning, online learning and challenges were collected from information available on the UNESWA Moodle LMS, published reports, and articles published on various websites. It analyses the importance of blended and multi-model learning at UNESWA. It further evaluates the challenges surfacing from COVID-19. However, the limitation for this study is that it is not exhaustive. Another study needs to be conducted on learners' performance; teachers and relevant stakeholders on what works or does not work, and this should then inform and improve practice.

Blended Teaching-Learning System

Blended learning is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. It is a thoughtful fusion of face-to-face and online learning experiences (Garrison & Vaughan, 2008). It means the Blended Teaching-Learning system is a method of education in which students learn through some combination of both face-to-face and online teaching-learning systems. Online learning is a method of education that takes place over the internet with the support of technology. During the technology mediated or online learning, students are not required to be physically together in one place but may be connected digitally through online communities. For example, some contents of a course could involve students attending a class taught by a teacher in a face-to-face classroom setup, while other components of the course could involve participation in online teaching-learning, where the students learn independently with the support of technology, or are connected digitally. Thus, in the case of blended learning, around 30 to 80 percent of the content is delivered through digital means, while the rest is provided through offline means, such as print material / textbooks and classroom teaching.

According to Taylor (2020), online learning is the 'education that takes place over the internet'. It can be subdivided into *asynchronous online courses* that do not take place in real-time and *synchronous online courses* in which the teacher and student interact online simultaneously. It means online interaction may be synchronous or asynchronous. Most of the time students work independently with the support of technology, such as video-recorded lectures, live video, projects, assignments and other digitally enabled learning opportunities. In other cases, students spend their limited time periodically in a traditional classroom, where they meet with their teachers to review their learning progress, discuss the subject content, get their doubts clarified, etc. Students in the blended learning system can spend more time working online independently with the support of technology than receiving instruction from a teacher in class. As such, the blended learning system is a flexible and convenient method of delivering educational content. That is, students study according to their own pace, place and convenience, using multi-media resources, such as online learning materials, virtual classes, face-to-face sessions, recorded audio-video lessons, uploaded lecture notes, e-books, etc.

According to Cleveland-Innes & Wilton (2018b), classroom instruction time may be replaced or augmented by online learning experiences, and online learning can include varying degrees of interaction or just time alone in an independent study and learning activities. However, in a quality blended learning experience, the content and activities of both in-person and online learning are integrated, and work towards the same learning outcomes. The various learning experiences are synthesized, complement each other, and are planned or orchestrated to run parallel. Lorenzetti (2013) emphasizes that there are many claimed benefits and uses of online learning. Some of the most important ones are its effectiveness in educating students, its use as professional development, its cost-effectiveness to fight the rising cost of postsecondary education, postgraduate education, and the possibility of providing an excellent education to anyone with a broadband connection.

Blended Teaching-Learning at UNESWA in the Digital Transforming Context
As part of its revised Strategic Plan 2018 – 2022 (UNESWA Strategic Plan, 2018), the University of Eswatini started implementing teaching-learning through Blended Teaching-Learning System, which is the combination of face-to-face and online teaching-learning systems.   UNESWA started online teaching-learning using the Moodle Learning Management System (LMS). UNESWA e-learning portal makes use of the Moodle Learning Management System to deliver courses online by supplementing face-to-face teaching and learning sessions. E-Learning portal enables online delivery of course material, conducting tests, submission of assignments, participation in discussions, and other similar tasks.

The dynamics of embracing change in the educational system shifting from a traditional delivery mode to a blended teaching-learning system focusing on online learning is a new paradigm or new normal.   The new normal entails greater attention to digital teaching and learning, which has developed strategies to reach diversity of learners, including the most remote and marginalized groups. From the preparedness phase to the actual implementation of the online learning system at higher education level is noteworthy. Thus, it appears the mass uptake of self-directed learning through blended learning is the future way of Teaching-Learning system in UNESWA. The Moodle LMS technology is crafting the role of teaching-learning in the University of Eswatini in general and in the Institute of Distance Education (IDE) in particular. Thus, the Moodle LMS has become an integral part of teaching-learning system in UNESWA. The Blended Learning system at UNESWA is shown in Figure 1.

Blended Teaching – Learning System
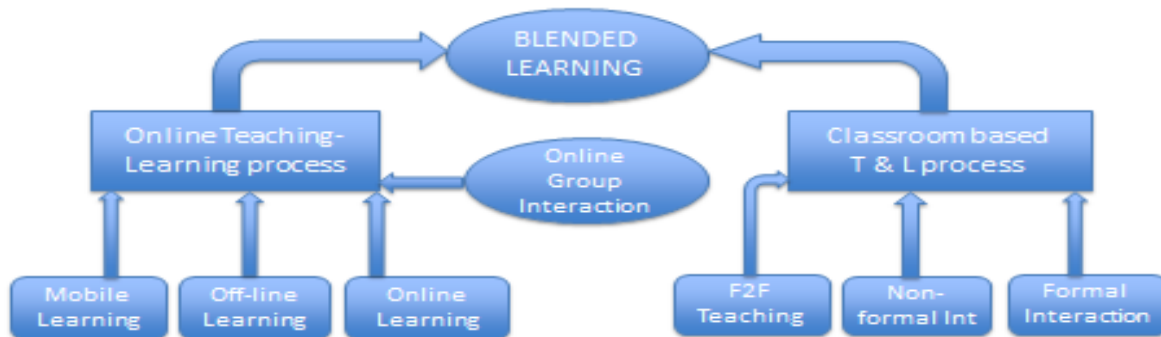
> Blended learning = Face-2-Face + Online Learning
> Online learning is an education that takes place over the internet.

Learning resources are accessible through the Moodle LMS for all UNESWA students. The online teaching-learning takes place in the form of: (i) Preparing and uploading lecture notes, power-point slides, recorded video lectures, related articles, e-books on to the Moodle LMS; (ii) Conducting tests, quizzes and assignments and Feedback; (iii) Synchronous and asynchronous instruction and discussion; (iv) Conducting virtual classes; (v) Conducting group work and group discussion and related teaching-learning tasks. Assignments, tests and quizzes are uploaded asynchronously to Moodle by lecturers and students attend to them during their own time and then submit them online. However, synchronous teaching-learning system requires scheduled time between the lecturer and a student. Audio-visual lessons and live lectures are available via the Moodle LMS, and are accessible to all students. The Moodle LMS provides accessible exchange of information between a lecturer – student and between student – student. Technology continuously monitors the progress of the learners in terms of reading, participation in discussion forums and even the amount of time they spent on the virtual learning platforms.

Intensive digital training for teaching staff
UNESWA facilitated training to its teaching staff on the Moodle Learning Management (LMS) to strengthen the digital teaching/learning system, which constitutes many learning tools and applications that support and empower teachers and students in online learning. As the technology-mediated teaching-learning began to grow after the training sessions, so did their interest in optimizing their lesson plans for their online learners. The training resulted in strengthening of online teaching/learning mode, using Moodle LMS and Zoom for conducting online classes.

The learning tools and technology enable students to develop effective self-learning skills. These changes have also highlighted that the promising future of learning, and the accelerated changes in modes of delivering quality education cannot be separated from the imperative of blended learning. In addition to online classes, UNESWA organized face-to-face sessions. These two modes of delivery complement each other to enhance the quality of teaching and learning. However, recognizing the fact that not all students

access online learning due to lockdown restrictions or internet connectivity challenges, UNESWA, in addition to online sessions, organized some special face-to-face sessions for disadvantaged students. This was in a bid to ensure that no student was left behind or disadvantaged due to COVID-19. UNESWA ensured that the COVID-19 guidelines from the Ministry of Health and the World Health Organization were observed.

Benefits of Blended Learning
From the above discussion, the key benefits of blended learning are as follows:
1. Blended learning provides more flexibility and convenience**;** students are able to study at their own pace, place and convenience from anywhere, any time with the support of education technology.

2. Students through blended learning are primarily learning independently with the support of blended online course material.

3. It provides opportunities for collaborative study. Further, it facilitates greater interactivity between students, as well as between students and teachers. Thus, students learn with others and teach others.

4. Learning opportunities are brought to learners at homes or in work places irrespective of whether they remain in one location or become mobile during their study.

5. Multimedia resources make the student accessible to global knowledge through online network, which improves meaningful levels of learning.

6. Blended learning promotes interaction and access to latest information as the students access a global net-work of education and learn from a wide variety of sources. It is also a cost-effective system.

However, Stern and James Madison University emphasized that the results of face-to-face and online studies vary depending on the courses offered, the characteristics of the students enrolled (e.g., gender, age, learning style, and the level of academic competence), and the instruction offered.
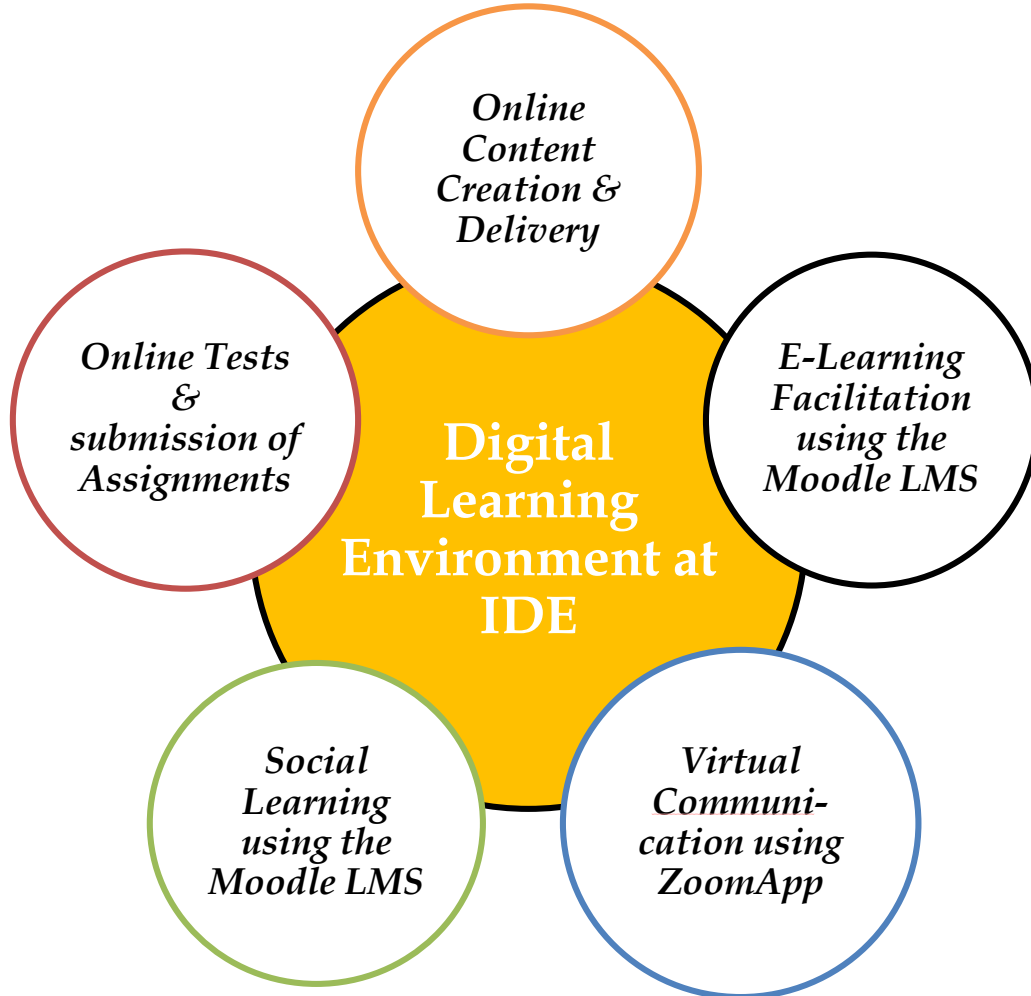
Strengthening of Digital Learning Environment Post Covid-19
Post Covid-19 Digital Teaching/Learning is envisioned as a strengthened Blended Learning System (BLS) in UNESWA, Institute of Distance Education (IDE). In view of the transforming context, UNESWA through Institute of Distance Education is planning to (i) move from print-based course modules to blended online course module mode of education, where the student depends, in addition to limited face-to-face sessions, on technology for online/virtual classes and on online materials, including open educational resources; (ii) fully move from manually written and printed assignments to online submission of electronic assignments; (iii) strengthen conducting online tests and assessments; (iv) conduct online examinations; (iv) strengthen e-learning infrastructure facilities which promote quality through social learning. As such, this system

enhances the quality of education. The online learning system is based on the principle of "Research based Teaching and Enquiry based Learning". Currently, UNESWA is working on strengthening the multi-model digital learning resources and create "Digital Learning Environment" for all UNESWA students as indicated below.

Multi-model digital learning environment at IDE, UNESWA

Online Content Creation & Delivery

Online Tests & submission of Assignments

Digital Learning Environment at IDE

E-Learning Facilitation using the Moodle LMS

Social Learning using the Moodle LMS

Virtual Communi-cation using ZoomApp

To strengthen the Multi-model Teaching-Learning System, UNESWA needs to prepare for strengthening a new paradigm (new normality) to focus on access, equity and inclusion in all that is done now. Based on the above discussion, one can draw inference that the Blended Learning is the future of Teaching-Learning system, because it is a flexible and convenient method for both educators and students. Thus, higher education in future will be based on multi-model teaching and learning systems.

However, as the *new normal* witnesses extensive use of technology in educational instruction, it requires innovations and an open mind-set to adopt and adapt it to the changing realities. As a result, assessment has been challenged during the crisis, which includes conducting online examinations.

Challenges that surfaced during the pandemic are:

(i)   Tendency to replicate in personal learning (not connected learning).

(ii)   Difficulty in leveraging technology and using it appropriately for assessment.

Moore of The University of the West is recasting the Traditional Assessment for Online Environment as follows.

Traditional Assessment	Authentic Assessment
1. To evaluate if the students have learned the content; to determine whether or not the students are successful in acquiring the knowledge to ascribe a grade for them; to rank and compare them against standards or other learners.	To measure students' proficiency by asking them to perform real life tasks; to provide students with many avenues to learn and demonstrate what they have learned; to guide instruction; to provide feedback and help students manage their own learning; to also evaluate students competency.
2. Provides teachers a snapshot of what the students know.	Provides teachers a more complete picture of what the students know and what they can do with what they know.
3. Measures students' knowledge of the content.	Measures students' ability to apply knowledge of the content in real life situation; ability to use/apply what they have learned in meaningful ways.

Now the University is trying to achieve the following for strengthening the blended teaching-learning system:

(i)   Increasing access to connected learning through multimedia technology resources including using a wide range Open Educational Resources (OER) for learning and sharing the knowledge openly to improve the quality of teaching and learning.
(ii)   Meaningful assessment (both internal and external examinations) that is reliable.
(iii)   Assessment that enables learners to demonstrate knowledge, competencies and skills in an online environment.
(iv)   Harnessing appropriate technology for reaching the unreached.

However, the groundbreaking changes depend on the availability, accessibility and affordability of: (i) adequate digital infrastructure facilities; (ii) adequate increased access of internet connectivity; (iii) policy supporting the extensive use of technology; and (iv) availability of hand-held devices, such as smartphones/ tablets/ laptops and other related devices to the students and teachers.

CONCLUSION

The use of online platforms such as Google Classroom, Zoom, Moodle LMS, Virtual learning environment and social media, like WhatsApp and WeChat are explored, tried for teaching and learning for the first time in education. These platforms can provide additional resources and coaching to the learners. Online learning has provided the opportunity to teach and learn in innovative ways unlike the teaching and learning experiences in the normal classroom setting.

Blended Learning is the future of the Teaching-Learning system because it is a flexible and convenient method for both educators and students. One key concept is that blended learning is not merely the addition of some technological element to an existing course, but rather an integrated plan, utilizing the best of what both face-to-face and online learning offer. With a blended approach, students can access a wide range of resources, including online videos or eBooks, at any time and any place, as long as they have a device and internet facility. Both internal and external resource links and libraries is integrated when learning is delivered through digital means.

Finally, it should be noted that the success of online teaching-learning depends on the availability, accessibility and affordability of: (i) adequate digital infrastructure facilities; (ii) access to internet connectivity; (iii) policy supporting extensive use of technology in education and; (iv) availability of hand-held devices, such as smartphones/ tablets/ laptops and related devices to teachers and the students.

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