

Implementation of Blended Learning in Higher Learning Institutions in Zambia: A Case of Kwame Nkrumah University

Oliver Magasu, Jive Lubungu, Owen Mulima, Lucy Kamboni,
Exsaviour Sakala, and Beatrice Kapanda

ABSTRACT

The study sought to establish the implementation of blended learning in Zambia, particularly, at Kwame Nkrumah University. This study employed a qualitative approach to generate data because it targeted for an in-depth indulgence into the issues under study on the implementation of blended learning at Kwame Nkrumah University. A descriptive research design was used. The target population were all students at Kwame Nkrumah University. The sample size was 36 participants. Inductive thematic analysis was used to analyse data because themes were strongly linked to data. The key findings were that participants understood the concept of blended learning as a combination of face to face interaction and online teaching. Some lecturers and students in some faculties were not willing to implement blended learning. The challenges were that because of big numbers of over 200 students in one class, it was not safe and possible to stick to the five golden rules of Covid-19. Some students were not able to access online services because of non-payment of the 50% threshold on tuition fees to access the services. Other challenges were that there was poor internet connectivity at the university, the e-learning tool (MOODLE) was limiting, the university did not have sufficient infrastructure to support blended learning and the Visually Impaired (VI) students were not able to access e-learning services. Based on the findings, the study recommends that the university invests heavily in ICT and infrastructure if blended learning was to be a success. Furthermore, the study recommends that students be oriented on e-learning tools. There is need in future to investigate how the Information Communication Technology (ICT) section at Kwame Nkrumah University was ready to implement blended learning.

Keywords: Blended learning, Implementation, Information Communication Technology (ICT), Modular Object-Oriented Dynamic Learning Environment (MOODLE).

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O. Magasu

Kwame Nkrumah University, Zambia.
(e-mail: magasu@yahoo.com)

J. Lubungu

Kwame Nkrumah University, Zambia.
(e-mail: lubbs1976@gmail.com)

O. Mulima

Kwame Nkrumah University, Zambia.
(e-mail: mulimaowen@gmail.com)

L. Kamboni

Kwame Nkrumah University, Zambia.
(e-mail: lucykamboni@gmail.com)

E. Sakala

Kwame Nkrumah University, Zambia.
(e-mail: savioursakala@gmail.com)

B. Kapanda

Kwame Nkrumah University, Zambia.
(e-mail: betkapanda@gmail.com)

**Corresponding Author: Magasu Oliver*

I. INTRODUCTION

Worldwide, the education system is grappling with the challenges of COVID-19 pandemic. Learning institutions had to close at some point as a measure of controlling the spread of the pandemic. Following the reopening of schools, colleges and universities that had earlier closed to COVID-19 pandemic in Zambia, the Ministry of Education guided that higher learning institutions be opened to blended learning while adhering to five golden rules of COVID-19 which are maintaining physical distance, wash hands frequently or use hand sanitiser, masking-up in public, avoiding crowded places and staying at home, and seeking medical attention early if symptomatic. This research reports on the implementation of blended learning in Zambia, particularly, at Kwame Nkrumah University.

A. What is Blended Learning?

According to Volchenkova (2016), the origin of blended learning pre-dates the advent of digital technology and that

its genealogy lies in distance learning. This means that blended learning was first used on distance learning students. Essentially, blended learning was initially meant to bridge not only space but time by the use of technology. To this effect, the earlier definitions of blended learning were vague and could mean any combinations of technologies, pedagogies and even job tasks (Friesen, 2016) without mentioning a specific technology. For instance, Procter (2016) defined blended learning as the effective combination of different modes of delivery, models of teaching and styles of teaching. However, Grahman (2006) gives us a more comprehensive and precise definition of blended learning in the 21st Century as a learning style that combines face to face instruction with a computer mediated instruction. This definition by Grahman is supported by Rao (2019) who defined blended learning as an approach that provides innovative educational solutions through an effective mix of traditional classroom teaching with mobile learning and online activities for teachers and students. This means that blended learning is a technology enabled learning beyond a classroom. We can also safely

conclude that blended learning is an innovation that counters the shortcomings of the traditional mode of teaching especially amidst pandemics such as COVID-19.

Blended learning is an approach that includes framing teaching learning process that incorporates both face to face teaching and teaching supported by Information Communication Technology (ICT) (Lalima and Dangwal, 2017). Thus, it provides both direct and indirect teaching. Defining blended learning in this case entails to understand the benefits of balancing both in-person and online learning. Drawing from best practices in both online and face to face methods, blended learning is on the rise at colleges and universities as the number of digital learning platforms and ways of leverage them for educational purposes continues to grow (Sharma (2010) in Sarfraz *et al.* (2022)) especially with the limitations of the COVID-19 pandemic. Additionally, Bowyer and Chambers (2017), has observed that blended learning appears to be the most commonly used in higher education though most studies have been done in the United States. However, there is also need to establish its implementation in Zambia, particularly at Kwame Nkrumah University.

The Association for the Development of Education is Africa (ADEA) (2020) conducted a study among 16 most Covid-19 affected African countries during the period of March 2020. The purpose of this study was to obtain a clearer view of the status of learning in order to better support countries in the immediate, short term and long term. The questionnaire covered among others, the national strategies in place to ensure learning continued at home. The study revealed that, among others, governments promoted blended learning through the development of digital and audio-visual resources and didactic kits for the needs of distance education and training for learners. However, the study noted that there was little evidence of deliberate initiatives aimed at addressing the issue of inclusion. The study further revealed gaps and challenges in the implementation of blended learning which included low uptake in ICT and TV coverage. Other critical challenge areas included lack of time for adequate preparation of educators for online lesson delivery, inadequate funding and weak quality assurance among others. The present study, however, focuses on implementation of blended learning at Kwame Nkrumah University. Therefore, the ADEA (2020) reviewed study provides some insights into blended learning implementation in the current study.

B. Benefits of Blended Learning

Blended learning provides an opportunity to students to choose either the face-to-face interaction in classroom or they can choose to learn online. Face to face interaction provides ample time to students to interact with their lecturers. This means that blended learning provides an opportunity for students to remain connected even outside classroom. According to Lalima and Dangwal (2017), face to face interaction is highly motivating for both the teachers and student, and it gives a human touch to the process while online learning provides students an option to learn anywhere, anytime and from anyone. Since the present generation is a generation of ICT, blended learning provides an opportunity to students to get ICT experience and exploit

available technologies to the fullest. Therefore, we can safely state that blended learning integrates online and offline learning activities and resources to reduce in-class seat time for students in a face to face environment which makes it ideal for a university.

According to Bowyer (2017), there is evidence that the introduction of blended learning in Higher Learning can improve course outcomes in terms of higher student retention and increased pass rate. Additionally, Stockwell *et al.* (2015) in Bowyer and Chambers (2017) established that blended learning improved attendance at face-to face classes, in self-report measures of student satisfaction and in examination performance. Garrison and Kanunka (2004) argue that blended learning is effective because it questions the traditional lecture method, allowing time to focus on more active and meaningful activities. This means that blended learning reinforces classroom activities. However, a study by Magasu, Mileji and Lubungu (2021) on e-learning at Kwame Nkrumah University established numerous challenges students were facing in accessing e-learning materials. This finding puts this study into focus to establish the implementation of blended learning at Kwame Nkrumah University in Zambia.

C. Pre-requisites of Blended Learning

As noted by Khan *et al.* (2012), blended learning is not easy to adopt. This means that there are certain things that need to be addressed. The successful implementation of blended learning will largely depend on developing learning staff knowledge and skills, funding and sufficient technology support. This means that lecturers should have an understanding and skills to blend both types of approaches, thus, the traditional and technological. This view is supported by Wahyudin (2020) and Magasu, Mutale, Gondwe, Mubita and Kombe (2021) who argue that until the teacher is properly trained, the desired end in the field of teaching learning process cannot be achieved. This means that the approach needs teachers who have a wider outlook and should be flexible. They should be ready to accept the changes and be innovative and dynamic. Parents should also be aware of this innovation to support it.

Furthermore, blended learning largely depends on infrastructure. According to Lalima and Dangwal (2017), institutions should not only have good classrooms but should also have a well-furnished computer laboratory with sufficient computers and the internet facility, a Wi-Fi, campus if portable. Besides, there is need for hardware support to learn online and offline. This requires investment in ICT. To invest in ICT means to equip lecturers, students and ICT personnel with knowledge and skills on how best online technology can be implemented. Whether these are factors that have been considered at Kwame Nkrumah University in the implementation of blended learning or not, this study will have to establish.

II. METHODOLOGY

This study employed a qualitative approach to generate data because it targeted for an in-depth indulgence in the issue under study on the implementation of blended learning at Kwame Nkrumah University. A descriptive research design

was used. The target population were all students at Kwame Nkrumah University. The sample consisted of 4 Deans of Schools and 8 Heads of Departments (HoDs) and 24 students purposively selected from the four intakes. 4 Deans and 8 HoDs were subjected to interviews and 24 students were subjected to Focus Group Discussions (FGDs), thus 4 FGDs comprising of 8 members were used to gather data. A pilot study was conducted for the so purpose of validating the instruments. Inductive thematic analysis was used to analyse data because themes were strongly linked to data. To ensure trustworthiness, member checking was done. The researchers were guided by the principles guiding ethical research in social sciences.

III. FINDINGS

A. Definition of Blended Learning

This study was exclusively meant to establish the implementation of blended learning in higher learning institutions in Zambia, particularly, at Kwame Nkrumah University. The first research question sought to establish participants' understanding of blended learning. The question was: *What is blended learning?* It was clear from their responses that they knew what blended learning is. Generally, blended learning was defined as a learning approach that combined physical learning and e-learning. A Dean of School defined blended learning as:

A combination of both face-to-face contact and online learning.

Another participant, a Head of Department (HoD), defined blended learning as:

Teaching online and at the same time, teaching physically.

B. Implementation of Blended Learning

The second research question sought to establish how blended learning was implemented. When the faculties were asked to indicate how they were implementing blended learning, it was established that the different faculties were lecturing physically and administering assessments online. Though marking online has proved to be a challenge. The assessments were administered via a learning platform Modular Object-Oriented Dynamic Learning Environment (MOODLE). Another participant, a lecturer, indicated that most of the lessons were done face to face. This is what one dean had to say:

We used to implement online learning via ZOOM though we have relaxed. But most of our lectures are physical.

The above finding was confirmed by a student who said:

In EDU 400 we had two online lessons this term which were disrupted due network failure. We could not get the audio and the lesson was cancelled.

As a follow-up to how blended learning was implemented,

the deans were asked to state the compliance levels by lecturers. One dean had the following to say:

About 40 to 60% of our lecturers were taking blended learning seriously but others were resisting. This was also so with our students. Change comes with its own challenges

C. Challenges in the Implementation of Blended Learning

A number of challenges were established which hampered the effective implementation of blended learning. Since most of the lectures were physical, some students and the school management had dropped the guard of adhering to the five golden rules of Covid-19. This is what one participant said:

The capacity of ICT was not enough. For example, we wanted to administer an exam for EDU 400 with over 1000 students but only a few were accommodated by the platform. So, we had to abandon this exam.

It was also established that there was need to invest in Information Communication Technology and infrastructure development. This is what one participant said:

We need bigger computer laboratories for those students who do not have or who do not have the right gadgets to use.

In line with infrastructure development, some participants indicated that the university management should provide lecturers with appropriate gadgets because they were using their devices for university work.

In terms of orientation on online tools, it was established that there was no orientation on the end use who is a student. This to some extent affected the implementation of blended learning. But on the part of the learners, it was established that lecturers were oriented though some felt it was not enough. This is what one participant said:

Orientation has not been effective. It has been done in an unstructured manner as a result some lecturers miss the orientation. There is need for proper training as lecturers were not ICT specialists. It should be done steadily.

IV. DISCUSSION OF THE FINDINGS

The findings revealed that both lecturers and students at the university were conversant with the concept of blended learning. Participants defined blended as a teaching and learning pedagogy that combined face to face interaction with e-learning. This definition was in line with that of Chew *et al.* (2008) who defined blended learning as learning that involved a combination of fields of concern; education and education technology. The finding is further in agreement with Lalima and Dangwal (2017) in Naidoo and Singh-Pillay (2020) who add by stating that blended learning is a new model that incorporates the benefits of conventional teaching and the use of ICT within educational milieus. This means that the two techniques of teaching should supplement one another. When the learners are not physically in class, online

lessons take up the space of physical learning and vice versa. The shift to blended learning is unavoidable because of Corona Virus. The shift is also a measure to control the spread of the Corona Virus pandemic as well as a measure not to disrupt the normal schedule of schooling. This view agrees with Volchenkova (2016) who argued that blended learning depends on the intended goals of adopting it, and how successfully the challenges of implementing it are met.

The fact that participants indicated that some online lessons were abandoned due to technical errors means that lecturers were not fully vested with online tools and that there was need to develop their capacity on online tools. This finding was similar to those by Naidoo and Singh- Pillay (2020) who established that the success of blended learning required adequate professional development to the use of technology-based resources effectively. The resistance by some lecturers to implement blended learning could also be attributed to incompetence in online tools. Additionally, Dhawan (2020) observes that the difficulties and problems associated with e-learning were issues to do with installation, login problems, problems with audio and video and so on.

Furthermore, the study established that blended learning at Kwame Nkrumah University had some limitations and that not all students accessed online services. This means that it was not effectively implemented. Students were denied the benefits that come with blended learning as a result of poor internet connectivity, services only available to those who had paid the 50% threshold, lack of proper gadgets and not accessible to the Visually Impaired. By implication, blended learning at Kwame Nkrumah University was insufficient to secure a pedagogical gain. This finding agrees with a study by Mukuka *et al.* (2021) in Zambia to explore secondary school students' experiences with Mathematics during Corona Virus that institutions of learning should provide ICT products and services to all learners regardless of their socio-cultural and economic status. If the products and services of blended learning are not provided to all, the gap between those who access them and those who do not widens. One would argue that education should be the best equalizer.

Since the study established that MOODLE was limiting, means that blended learning was a failure. Therefore, there was need to invest in ICT and infrastructure. The institution should design a virtual laboratory fully equipped with learning materials so that even those students who do not have the right gadgets can access online materials. According to Magasu, Muleya and Mweemba (2020) in Magasu, Mileji and Lubungu (2021), meaningful teaching requires clear strategies, methods and resources taking into account specific requirements and contexts of groups of people to which teaching and learning process is intended.

Since the study established that MOODLE was limiting, means that blended learning was a failure. Therefore, there was need to invest in ICT and infrastructure. The institution should design a virtual laboratory fully equipped with learning materials so that even those students who do not have the right gadgets can access online materials. According to Magasu *et al.* (2020) in Magasu *et al.* (2021), meaningful teaching requires clear strategies, methods and resources taking into account specific requirements and contexts of groups of people to which teaching and learning process is intended.

V. CONCLUSION

The concept of blended learning was well understood by the participants despite the challenges in implementing it. Some of the main challenges were poor internet connectivity, limitations with MOODLE, students not accessing online services because of the non-payment of the 50% threshold and lack of capacity building especially to the students. These findings indicate that blended learning was not well executed. Moreover, the implementation of blended learning at the institution lacked proper and comprehensive orientation of both students and members of staff. Since blended learning has become the new normal in the sphere of education with the outbreak of Coronavirus, there is need to invest in ICT, capacity building, widening the network coverage and making online services accessible to all students, backed by university policy formulation on blended learning.

VI. SUGGESTIONS FOR FUTURE RESEARCH

There is need in future to investigate how the Information Communication Technology (ICT) section at Kwame Nkrumah University was ready to implement blended learning.

VII. ACKNOWLEDGEMENT

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VIII. COMPETING INTERESTS

Authors have declared that there are no competing interests.

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Magasu Oliver holds a PhD degree in Civic Education. He is a Lecturer of Civic Education at Kwame Nkrumah University in Zambia. He has undertaken consultancy research and supervising or lecturing academic research at both undergraduate and postgraduate levels. His Research Area includes Civic Education; Teaching Pedagogy; Politics; Governance and Contemporary Issues. He has 29 published papers in national and international journals.

Special Award: A recipient of Research Grant No. KNURGP/2021/02

Other remarkable point(s): A reviewer in two international Journals.

Author of a book – “The Management of Electoral Conflicts in Zambia by Conflict Management Committees”.



Jive Lubungu is a Lecturer at Kwame Nkrumah University; School of Humanities and Social Sciences; in the Department of Literature and Languages; in Zambia. He holds a PhD in Literature; a Masters of Literature; and a Bachelor of Arts (BA Ed) Degrees obtained at Africa Research University and The University of Zambia; specialised in comparative Literature. He has contributed to the advancement of knowledge through teaching; Research; administrative experience and Paper

Presentations at local and at international platform. His research interest lies in comparative Literature; gender; and Contemporary Issues. He was Convener of Kwame Nkrumah University Golden Jubilee International Conference which was successfully held from 19-20th September 2018 in Kabwe, Zambia. He was the Chair of the International Conference on Education for Sustainable Development (ICESD 2020) co-organised with Zeetaz Publishing Nigeria, which was held in Zambia from June 28-29 at Kwame Nkrumah University. He was also the convener of the 2021 Tilembe National Literary Festival which was hosted by Nkrumah University from 11–12 December 2021. He has a strong passion for writing. He has worked with various stakeholders in his civic duties and in academics. He was a member of the senate of Africa Research University (ARU) from 2017–2020. He is a member of Zambia Network for Environmental educators and Practitioners (ZANEEP) Kabwe Chapter. He is also a member of the Zambia Textbook; Academic and Non-fiction Authors Association (ZATANFAA). He is also a member of The Authorship and Career Network (ACN) based in Zambia. He is also a recipient of the Kwame Nkrumah University Research Grant (Grant number: KNURGP/2021/02) and also a principal investigator of the same Research Grant. He has published Books as well as articles in international referred journals.

Lucy Kamboni is a lecturer in the Department of Civic Education, School of Humanities and Social Sciences at Kwame Nkrumah University. She was enrolled as a Pre-service Student for the 1996-1997 intake at Kwame Nkrumah Teachers' College where she pursued her Diploma in Education. With the knowledge and skill acquired from Kwame Nkrumah Teachers' College, Lucy was able to diligently serve as a Secondary School Teacher at Dominican Convent Secondary School in Ndola and Kabwe Secondary School respectively. While serving as a secondary school teacher, she was privileged to be among the first teachers to pilot the teaching of Civic Education in Zambia at Secondary School Level. She advanced her education by pursuing a Bachelor's Degree with Education at the University of Zambia and a Master of Arts Degree in Governance, Human Rights and Peace Building at the Copperbelt University, which she earned in 2015. Currently, she is a PhD candidate at the University of Zambia. In addition to her service as a Secondary School Teacher, Lucy also served as a Head of Section, Examination Council of Zambia Examiner of Grade Nine examination, setter of Grade Twelve Civic Education Examination papers and Secondary School Teacher Education Examination moderator. She also served as a Head of the Department of Civic Education at Kwame Nkrumah University from 2018 to 2020. As an alum and a University citizen of Kwame Nkrumah University, Lucy Kamboni was a member of the Golden Jubilee Research Committee and the first ever Paper Presentation Conference to be organized by Kwame Nkrumah University. She was also a contributing writer to a book entitled, 'Golden Jubilee: Celebrating Kwame Nkrumah Teacher Training Institution (1967-2017)'.

Owen Mulima is a lecturer in Religious Studies Education (RSE) at Kwame Nkrumah University in Zambia, Southern Africa. He is a member of the Religious Education Consultative Group (RELCEG) in Zambia. He is also an Author Aid Mentor with Orcid, id: <http://orcid.org/0000-0002-2105-4038>. Owen has taught a number of courses in Philosophy of Religion, Psychology of Religion, Guidance and Counselling in Religious Education, Teaching Methods and other Religious Studies courses. His research and publication interests include Information Communication Technology, Religion and Teaching Methods.

Mr. Sakala Exsaviour has been full-time Lecturer of civic education teaching methods, global issues and international relations since 2017, currently based in Kabwe, Zambia. As an educationalist, he has special interests in pedagogical approaches, governance and global issues. Sakala is a PhD candidate with the University of South Africa (UNISA) specialising in civic education and curriculum studies. He serves as a member of Kwame Nkrumah University Senate. He is passionate about reflective teaching methods and uses his teaching background to assist trainee teachers in equipping them to balance the teaching methods used to develop the learners emotional, intellectual, social and physical needs. Sakala is academically active and enjoys research and collaborative work.

Beatrice Kapanda served as a part-time lecturer at Kwame Nkrumah University, History Department from 2012 and eventually joined as full-time in 2019. I am actively involved in the teaching of the courses offered by the Department. These includes Research and Methods, History of Africa, and World History. I also participate in examining the History M.A dissertations for post-graduate students. **Publications.** A Zambian Requiem: KK's Collective Memory in History.