

Research Article

Blended Learning Instruction at Tertiary Level: Experiences of Students in One Tertiary Institution in Eswatini

Mpila Ntombizodwa¹, Nxumalo Zodwa Gcinaphi^{1,*}, Mathamane Lungile Nxumalo²

¹Faculty of Education, University of Eswatini, Department of Primary Education, Kwaluseni, Eswatini

²College of Humanities, University of Kwa-Zulu Natal, Durban, South Africa

Abstract

This study explores the experiences of university students on the use of Blended Learning instruction at tertiary level in one tertiary institution in Eswatini. The study adopted the qualitative research approach where the case study research design was used. The study targeted students in one campus of the tertiary institution. Data were collected from a total of 15 (fifteen) students of this campus who were selected using the Simple Random Sampling technique. The data were collected using one on one interviews and were analysed using Content Analysis. The findings of the study revealed that students have varied experiences about Blended Learning. While some have pleasant experiences of this mode of learning others have unpleasant experiences. The study found that some students view Blended Learning as a good mode of instruction that offers them the opportunity to access education anywhere anytime. The findings also revealed that the Blended mode of instruction benefits students in terms of its flexibility in learning times, vast sources of information and covering a lot of content in a short period of time. This mode, however, has numerous challenges which inhibit its successful implementation. These are limited data bundles and poor internet connection which inhibit learners from accessing lessons on line. The study therefore recommends that institutions must work with the relevant network providers (Eswatini MTN and Eswatini Mobile) to provide unrestricted data and network services to students.

Keywords

Blended Learning, Traditional Face-Face Learning, E-learning, Developing Country

1. Introduction

Education methods of instruction have undergone transformations over the centuries and this has seen the use of technology being the cornerstone for innovation in teaching. Teaching through technology aims at enabling students to not only acquire subject specific knowledge but to also become lifelong students in a digitally connected world [1]. Worth noting is that technology and traditional face to face instruction are combined during teaching/learning, and the practice

of combining these two is referred to as Blended Learning.

1.1. Background of the Study

Blended Learning is a current trend in education where face-to-face classes are combined with web-based learning, and is normally defined as the integration of traditional classroom methods with online activities [2]. Blended

*Corresponding author: znxumalo@uniswa.sz (Nxumalo Zodwa Gcinaphi)

Received: 29 April 2024; **Accepted:** 21 May 2024; **Published:** 27 August 2024



Copyright: © The Author(s), 2024. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

Learning is by definition a combination of web and personal interaction between teachers and students, during which the advantages of both instructional approaches are used [3]. Collis and Moonen also define Blended Learning as a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online [4]. The Blended Learning approach is viewed as an important building block of the new schoolhouse that offers students both flexibility and convenience which can cater for working adults who decide to pursue their studies [5]. The approach introduces, and utilises new information and communication technologies for the development of an innovative learning environment to transform and improve learning [6]. In addition to combining online and face to face classroom learning activities, the approach also uses resources in an optimal way in order to improve student learning outcomes, and to address important institutional issues [7]. Educational institutions are increasingly using blended delivery strategies to deliver course content to diverse and dispersed student cohorts. The reason for this is that Blended Learning “creates a potential to provide flexible access to content and instruction at any time, from any place and cost-effectiveness for institutions of higher education” [8].

This new approach to teaching/learning has come with many benefits to the teaching and learning process, however, it has also been found to have some challenges which prohibit its successful implementation. For instance; in the United States of America, Abbacun-Tuguic report that students in online learning conditions performed better than those receiving face-to-face instruction, so the approach is beneficial to the learners [9]. In Malaysia McCarthy posits that the Ministry of Education proposed a framework for adopting Blended Learning in Higher Education Institutions [10]. This was based on the belief that the Blended Learning approach enhances students’ learning and retention of the material that has been learnt. Something similar can be said about Blended Learning in Saudi Arabia. According to Alebaikan Saudi Arabian universities, including UQU, use Blended Learning applications to supplement their traditional lesson delivery in the lecture halls, without a comparable reduction of attendance requirements for students or their lecturers [11]. According to Almalki since the Saudi Arabian higher education system adopted Blended Learning delivery as a means of improving quality and capability of its institutions the efficiency of higher education in Saudi Arabia has increased in terms of quality and capacity [12]. In particular, Blended Learning approaches enhance interactions and communication between students and instructors and this enhances teaching and learning. The approach however, presents challenges of access, computer literacy, and parental attitudes as it requires the use of the internet [11].

Kumi-Yeboah, A. et al posit that in Ghana, there is a technical problem regarding reliable power supply to institutions that run distance learning [13]. This hampers the adoption of information and communication technology (ICT) into the

distance learning, making the internet unreliable for students and faculty. Few of the tertiary institutions in Ghana are equipped with up to date internet and wireless broadband; telephone links to rural areas are poor despite advances in wireless technology. Access to information technology and connectivity is generally limited in these institutions and staff is not trained on how to use ICT facilities, thus hindering the growth of Blended Learning. The Blended Learning approach has proven to have advantages to academic staff, such as accessibility of information, and universal connectivity, which enables the formation of communities of inquiry, and innovative teaching strategies. However, negative perceptions held by members of academic staff could affect the adoption of Blended Learning [14-16].

Blended Learning is an approach that is also utilised in South Africa; however, what has been noted is that its challenges supersede its benefits as Blended Learning has been found to have immense challenges. These are caused by the lack of suitable infrastructure and access to technology. Tshabalala, et al advanced a list of challenges that add to the constraints in the implementation of Blended Learning. These are lack of policy, lack of faculty support, lack of technological and computer skills, large class sizes, and inadequate technological resources [17]. Tshabalala et al further express that the absence of a policy on Blended Learning; inadequate training for staff; limited access to the computer laboratory for students, were problematic to the success of BL [17].

The kingdom of Eswatini is not excluded in the challenges of Blended Learning. The use of the Moodle platform in Eswatini institutes of higher learning to enhance face to face learning has been met with challenges. Pitikoe et al assert that while some students excel in using the Moodle platform, others lack the technical skills to manoeuvre the platform [18]. Eswatini institutions of higher learning adopted the Blended Learning mode of instruction after the lockdown which was necessitated by Covid 19. In Eswatini, schools and universities were closed and this saw many school and university activities being conducted online. Despite that some universities in Eswatini had already introduced students to online learning; most students were still massive users of the traditional model of face to face learning. The concern therefore was the readiness of the students for digital learning in the sudden radical change hence the challenges [19].

1.2. Problem Statement

The changing methods of course content delivery have long been an established topic of discussion and debate among institute faculties and academic management of universities around the globe [20]. Many countries including Eswatini are seeking to develop their education systems through the use of these technologies and methods of modern learning such as Blended Learning in the field of education, in order to keep pace with technological developments and to achieve satisfactory results. This new approach has come with many ben-

efits to the teaching and learning process, however, it has also shown to have some challenges which prohibit its successful implementation. Research has shown that students in Blended Learning face challenges such as internet connection, limited Wi-Fi, limited mobile data, lack of administration support to name a few, and this hinders their learning experience. The Blended Learning model of instruction is already in use in Eswatini universities, yet the readiness of students was not ascertained before its implementation. This study therefore, explored university students' experiences on their use of Blended Learning in one institute of higher learning in Eswatini.

1.3. Research Objectives

The objectives of the study were to:

1. Explore the experiences of university students on the use of the Blended Learning mode of instruction.
2. Establish the benefits of using the Blended mode of instruction at tertiary level.
3. Determine the challenges of using the Blended mode of instruction at tertiary level.

Students experiences of Blended Learning

The review of literature indicates that Blended Learning has a number of benefits on learners. A study by Lopez-Perez et al reveals that Blended Learning positively affects students as it reduces dropout rates and develops in learners a positive attitude towards their school work [21]. Huang conducted a study which aimed to probe into learners' perceptions of Blended Learning in relation to the respective roles of face-to-face learning (f2f learning) and online learning [22]. The results showed that students were generally positive about Blended Learning and that they also acknowledged the interdependencies between face to face learning and online learning in the Blended English course. The two learning modes were also considered to play different roles in English learning. Participants thought that online learning was more advantageous to listening, while face to face learning promoted the learning of world knowledge and helped to improve learners' interests in learning English. The findings of the research shed light on how face to face and online learning integrate in the Blended Learning approach so that the learning environment can be better integrated for English learning.

Another study was conducted by Armellini et al and it focused on university students' perceptions of their learning and social experiences in the context of an institution wide pedagogic shift to Active Blended Learning (ABL). The study found that students value regular synchronous and asynchronous interaction with peers, tutors and content, enabled by sound pedagogic design and the appropriate deployment of digital technologies. Employability-focused activities that explicitly link theory and practice are regarded as an essential ingredient in learning and assessment. What this means therefore is that in this study Blended Learning was viewed as very beneficial in learning [23]. Meyer et al conducted a study

to evaluate students' experiences with Blended Learning (BL) with the focus on development and delivery across schools. The study found that Blended Learning allows for meaningful learning, as long as tutors set learning activities that comply with the level of learning that is required by the student. The study also found that while some tutors designed online activities that were appropriate, some did not, and this affected the implementation of Blended Learning [24].

Rizvi et al conducted research to determine the perceptions of faculty members in a private international university on barriers influencing the adoption of technology for teaching and learning. A cross-sectional survey was conducted through a self-reported questionnaire using 'survey monkey'. The data were entered and analysed using Statistical Package for the Social Sciences (SPSS version 20). Frequencies and proportions were reported. The findings indicated that 51.6% faculty members perceived the importance of integration of technology in their teaching. Around 54% of the participants recognized that they do possess the ability and accessibility to integrate information communication technology (ICT) in teaching and learning, but there is a need to improve the basic information technology (IT) skills to initiate technology driven teaching [1].

Kavitha and Jaisingh examined the student's experiences in Blended Learning environments. Relevant data were collected from undergraduate and postgraduate students who were exposed to a Blended Learning environment while learning programming subjects [25]. Learning analytics had been applied on the collected data. It can be inferred from the results that the Blended Learning approach is more beneficial for students who are skilled in using certain computer programs and applications. The results of the study also provided new insights into the student preferences for learning in knowledge sharing and collaborative environments. Blended Learning in particular, helped students increase their interactions, communication skills, self-confidence, self-awareness, as well as encourage discussion and collaboration not only with their lecturers but also with their peer classmates and course materials leading to an overall positive experience reported by the students thus becoming more active in their learning and creating a more interesting and engaging learning process [2, 27, 28].

Pitikoe et al in Eswatini did a study on adult learners of an institute of higher learning which explored how Moodle enhanced self-directed learning among the adult learners and how these adult learners mastered the content using the Moodle platform. It was found out that while some students excelled in using the platform; others lacked the technological skills to manoeuvre the platform. Also participants lamented that some lecturers did not post materials in Moodle. The study concluded that lectures need to post more material on Moodle and students need to be kept abreast with Moodle through refresher videos. Lastly periodic institutional assessment on the uptake of Moodle should be done.

Benefits of Blended Learning on learners

The literature reviewed revealed that Blended Learning benefits both teachers and students in varied ways. It helps higher education students to improve their understanding of the concepts they are learning. Furthermore, it ensures that students' technological knowledge of various aspects of learning is essential in assessing students' readiness, which is a prerequisite for the successful application of Blended Learning [29, 30]). Kaur posits that the blended delivery system allows students to learn and access material in a variety of modes, which is a very important feature since students often have very different learning styles [7] In fact, research indicates that Blended Learning increases students' chances of meeting course outcomes compared with fully online and even fully face-to-face courses, by decreasing dropout rates, increasing test scores and increasing motivation on the part of students, as it taps on the learners' different style of learning. For Hancock and Wong Blended Learning offers students the best of both worlds because instructors and students have greater flexibility and accessibility without sacrificing face-to-face contact. The Blended Learning approach therefore, is an effective and low-risk strategy aimed at meeting the challenge of the transformational changes that technological developments bring to higher education [31].

A study by Bouilheres et al whose purpose was to explore the benefits of Blended Learning towards students' learning experiences at an offshore campus of an Australian university located in Ho Chi Minh City, Vietnam, found that students vary in their responses towards the benefits of Blended Learning and their experience with the Blended Learning approach [20]. The focus of this research was its usefulness and effectiveness in promoting interactions between students and their peers, their teachers, and course materials. An online survey, which was designed based on a set of validated questions, was used to collect data from sixty-six (66) students enrolled in eight Blended Learning courses. The analysis of the survey results provided empirical evidence to the claim that students' perceptions of their learning experiences at the university was beneficially impacted as a result of the Blended Learning environment in each of their classes. The survey presented four dimensions of benefits, which are: Engagement, Flexibility of learning, Online learning experience, and Self-confidence.

According to Fakhir students can get access to a wide variety of learning resources through their devices which are connected to the internet while being seated in the comfort and safety of their classrooms or even at homes. Moreover, teachers can vary their pedagogy and enhance it by accessing libraries and databases, using the various media forms available, and managing their classrooms electronically [32]. Szadziowska and Kujawski conducted a survey on the advantages and disadvantages of the Blended Learning method used in the educational process at the faculty of management at the University of Gdansk. The survey involved undergraduate students pursuing a program at the Accounting specialisation. The results of the research indicate that the

Blended-learning method is a good method for supporting the traditional teaching process at the university's Faculty of Management. 50% of the respondents indicated large or very large usefulness of this method. According to the students, the main advantage of the Blended Learning method is easier access to the educational materials [33].

Another study conducted by Smyth discovered several benefits and challenges of Blended Learning. Results showed that students appreciated the accessibility and flexibility that characterised Blended Learning. Other benefits identified included greater freedom in planning their learning, more response in learning the content, and a better effect on learning using the Blended method. It was also found that Blended Learning allows learners to visualize, listen, feel, and interact with the learning material. It moves them from theory into practice. Another benefit was that learners can gain deeper understanding for all the abstractions they get through. They can learn according to their pace, which creates the opportunity for more individualised learning [34] Overall, studies have collectively found that students generally have a positive perception of Blended Learning [35]. Students favoured Blended Learning because the online learning part allows them to learn repetitively and also review course content [36]. This study concurs with Harrington and Loffredo who found that introverted learners preferred Blended Learning as it gives them the opportunity to learn on their own [37].

1.4. Challenges of Blended Learning

The review of literature further reveals that the adoption of the Blended Learning approach by students presented challenges which might have consequences on the quality of the learning process, and may hinder its expansion and application in various learning settings. One of the challenges is how users can successfully use the technology and ensuring participants' commitment given the individual learner characteristics and encounters with technology [38] Hofmann adds that if learners encounter challenges during learning they may decide to abandon the learning. Consequently, while students viewed flexibility of access as an important element of Blended Learning, others felt that Blended Learning reduced their interaction with their teachers and their peers [36] Other studies have shown that not all faculty members are inclined towards Blended-based instruction [39] Some still considered the use of ICT as "time-consuming" [39]. For example, the study by Benson et al revealed that preparations for lecture or teaching materials design and development on web-based platforms require more time than face-to-face interaction [39].

Adding onto the challenges, Hofmann outlines the following: ensuring participants' ability to use technology successfully, changing teachers' attitudes towards the effectiveness of Blended Learning, administering and controlling learners' progress, finding the best match between delivery medium and performance goals, and maintaining that online resources offer interactivity rather than just instructing learn-

ers [38]. He also added that obstruction, misperception, irritation, and uneasiness, can undesirably affect productivity, learning, social relationships and overall achievement in addition to many challenges in evaluation, observation and classroom management [38].

Abbacun-Tuguic undertook a study where he explored students' attitudes, and readiness for learning to determine their adaptability to a Blended Learning environment using different technological platforms and investigate problems and challenges that the students faced in their learning [9]. The study adopted the mixed-method approach in which questionnaires and interviews were used as data collection instruments. The findings of the study revealed technological lapses such as unavailability of devices and internet connectivity which hindered the success and productive implementation of Blended Learning. The findings also revealed that students had positive attitudes and showed a moderate level of readiness to implement Blended Learning.

In a study that explored participants' experiences of tertiary Foundation Level 3 teachers and students transitioning to a Blended Learning environment with the introduction of a Learning Management System, Google Classroom and Google Suite for Education, Thomas found that Blended Learning increased communication, collaboration and autonomy of participants. Research participants comprised three teachers and 12 students from three regional locations. The significance of the findings related to improving teaching and learning outcomes when transitioning from face-to-face to a Blended Learning environment. Challenges were evident in digital literacy skills, professional development, Wi-Fi connectivity and hardware compatibility.

Moreover, Szadziewska and Kujawski said other challenges include the slow internet connection which hinders the learning procedures and causes difficulties when for participating in the online activities, the high costs of Blended Learning such as the high cost of hardware, facilities, software programs, and the execution of electronic communication between educational societies, specialists and students, and the need for specialised training programs for the academic staff to use computers and the internet.

Oh and Park identified a list of challenges on the implementation of Blended Learning and these are: "lack of policy, lack of faculty support, lack of technological and computer skills, large class sizes, and inadequate technological resources" [15] (p. 108). In their case study conducted in South Africa, Oh and Park investigated academic staff's perceptions of Blended Learning to allow for the identification of challenges encountered. It was determined that "the absence of a policy on Blended Learning; inadequate training for staff; limited access to the computer laboratory for students" were problematic to the success of BL [15]. In the same vein, Mirriahi, et al indicated that a lack of institutional definition of Blended Learning causes some challenges, as well as the lack of staff capacity to engage with BL. It increases the probability of misinterpreting the BL principles and prac-

tices [40].

The review of literature unearthed various studies which have been conducted focusing on the problems of Blended Learning, benefits of Blended Learning, and the experiences of students on the Blended Learning approach. However, none have been done on the experiences of students on Blended Learning in one institution of higher learning in Eswatini. In this context the present study is expected to make a contribution to the literature by exploring the experiences of students on the Blended Learning approach in one institution of higher learning in Eswatini.

2. Research Approach

The study adopted the qualitative research approach; an approach that allows the researcher to study things in their natural setting, striving to make sense of the phenomenon in terms of meaning mankind brings to them [41]. A qualitative research study according to Cresswell is concerned with how individuals and groups view and understand the world and construct meaning out of their experiences [42]. The researchers therefore adopted the qualitative research approach because it is useful in studying human behaviour in its natural setting as it allows for the use of various methods that do not impose the researchers' own perceptions but allows participants to relate stories about their lives [43]. Moreover, in this approach, research can be carried out in a natural environment so that participants are free to share their views and opinions. The approach also makes it easy to manipulate and collect data in a more simplified way. In this regard, it enabled the researchers to get a deeper understanding of the phenomenon under study.

2.1. Research Design

This study engaged the case study design where one of the university campuses was selected as its case. Yin defines the case study research design as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, where the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence are used [44]. Pandey and Pandey describe it as a method used to narrow down a very broad field of research into an easily researchable topic [45]. The potential scope of the case study format is flexible and broad, ranging from brief descriptive summaries to long, detailed accounts. Furthermore, the detailed qualitative accounts often produced in case studies not only help to explore or describe the data in a real-life environment, but also help to explain the complexities of real life situations which may not be captured through experimental or survey research [46]. The case study design therefore was appropriate for this study because the study was based only on one campus out of a total of three campuses.

2.2. Population, Sample and Sampling Procedures

Population refers to a group of people or collection of organisms sharing the same characteristics [47]. Brink and Rensburg on the other hand define a study population as the entire group of persons or objects that is of interest to the researcher or that meets the criteria that the researcher is interested in studying [48]. The population that was targeted by the researchers comprised of all the full time and part time students from the institute of higher learning in question. Since it was not possible to engage all these in the study, 15 students were sampled for the study.

A sample according to Ary et al is a smaller group or portion of a population which is a representation of a larger group [49]. McCombes defines a sample as a group of subjects or individuals selected from all the other respondents in a population from which the study is being conducted who share the same characteristics [50]. Bless and Higson-Smith also define a sample as a subject of the whole population which is actually investigated by a researcher and whose characteristics are generalized to the entire population [51]. The sample in this study comprised of students enrolled for the Bachelors' degree program in education that is five (5) full time students, five (5) part time students and five (5) from adult education. This gave a total sample size of 15 students that were sampled to take part in the study.

The selection of the participants was done through the Simple Random Sampling technique. This technique involves the random selection of a small number of cases from a larger population. The simple random sample means that every case of the population has an equal probability of inclusion in the sample [52]. Blanche et al state that effective sampling ensures that the elements selected for a sample accurately resemble the parameters of the population they were selected from [53]. This sampling technique ensured that all students have an equal opportunity to be selected for the study. In this technique, participants were chosen on the basis of randomly assigned numbers. In this design, you select subjects in such a way that each individual has an equal chance or probability of being selected. The selection of participants was done by randomly picking a number from a container. The researcher created a number list for the students. The researcher wrote numbers on pieces of paper for the students to pick; these were numbered 1-5, for each class of students, and the rest of the papers were blank. These numbers were put in a bucket which was shaken before any student could pick. Only students who picked the numbers participated in the study. This process minimised the bias of hand picking participants and ensured that all the students had equal opportunities to be part of the study.

3. Data Collection Instruments

There are two different approaches in collecting infor-

mation about a situation, namely the primary and secondary data sources [54]. Douglas says that primary data are data collected for the first time by the researcher while secondary data are data already collected or produced by others [55]. In this study, the researcher collected data from primary sources. The researcher conducted face to face interviews which were scheduled with the participants in the campus. An interview is described by Nieuwenhuis as a two-way conversation in which the interviewer asks the participant questions to collect data and to learn about the ideas, beliefs, views, opinions and behaviours of participants [56]. The researchers were of the view that interviews were an appropriate choice for this study because it was qualitative in nature and therefore required data collection methods that would yield qualitative data. Semi-structured interviews were chosen because of their being flexible in nature and also that they enabled the researchers to broaden the scope of the interview by asking questions and probing the responses that were given for purposes of clarity.

Taylor also adds that semi-structured interviews create a rapport between the interviewer and the interviewee as they enable the interviewer to have focused conversations with the interviewees as they relate their beliefs and feelings. They also enable the researcher to ask open-ended questions with little control over respondents' responses [57]. The open-ended nature of the questions in this study helped build a vivid picture of the responses of participants and further allowed the researcher to unearth the experiences of students on the Blended Learning instruction.

4. Data Analysis

Data analysis is a strategy used to examine the data for meaningful themes, issues or variables to discover how these are patterned and to attempt to explain the patterns [58]. In line with this description, data collected for this study were analysed using Content Analysis. Content Analysis according to [54] is "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use". Babbie postulates that Content Analysis is a research tool used to determine the presence of certain words, themes, or concepts within given qualitative data. In addition, using Content Analysis, the researchers can analyse the present meanings and relationships of certain words, themes or concepts [59].

To conduct Content Analysis on any text, the text is coded or broken down into manageable categories on a variety of levels. The levels used include phrases, sentences or themes. The information is then compared and interpreted with the underlying context [59]. Themes for this study were linked together. This was followed by translation and interpretation of similar themes to bring forth results. The following stages were followed as outlined by Henning et al. Firstly, the researchers segmented units of meaning in one or more sentences. The researchers further labelled these units (coding) of meaning in more than a single word. Related codes were

grouped and categorised and then themes were identified from the categories. Finally data from the interviews were categorized under various headings. Themes were used as a basis for arguments and discussions. The researchers analysed the content of the data and then compared it to the research questions, literature review, and theoretical framework and was able to draw conclusions [60].

5. Discussion of Findings

5.1. Students Experiences of Blended Learning

The findings of the study indicated that students have different experiences, with some pleasant, and others unpleasant, as well as different views on Blended Learning. Some students view Blended Learning as an effective mode of instruction that offers students with the opportunity to access education anywhere anytime. These findings are in line with the findings of Huang who stated that some students were generally positive about Blended Learning and they also acknowledged the interdependencies between face to face learning and online learning [22]. The findings also concur with the assertion that students viewed flexibility of access as an important element of Blended Learning despite that it reduces their interaction with their teachers and their peers [36]. The findings of the study further revealed that Blended Learning was experienced as pleasant because it offers opportunities for students to embrace new technology and it opens their minds in terms of computer literacy. This finding is in line with the findings of Meyer et al who mentioned that students were mostly satisfied with the process of being exposed to Blended Learning as it enhanced their computer skills [24], which, however, contrary to the finding of Kavitha and Jaisingh that the Blended Learning mode is only beneficial for students who are skilled in using certain computer programs and applications [25].

On a different note, the findings indicated that some students had unpleasant experiences on the Blended Learning approach as they view this mode of instruction as not very effective because of the challenges it presents to the students. Some of the challenges include poor internet connectivity which prevents students from accessing courses online, among others. In line with this finding, Henning et al stated that some of the challenges were evident in digital literacy skills, professional development, Wi-Fi connectivity, poor internet connection, and hardware compatibility [60].

5.2. Benefits of Blended Learning

The study also found that the use of Blended Learning had numerous benefits. Some of them were that it allows for flexibility of learning as students can learn anywhere anytime. In accordance with the findings, students can learn according to their pace, at home, university, or anywhere, which creates the opportunity for more individualised learning. This finding

is in agreement with Hancock and Wong who opined that Blended Learning offers students the best of both worlds because instructors and students have greater flexibility and accessibility without sacrificing face-to-face contact [31]. Smyth et al also stated that students appreciated the accessibility and flexibility that they thought characterized Blended Learning. Also, the findings revealed that Blended Learning is beneficial in that students are able to get information from other sources other than the lecturer. Through the internet students are able to gather information and read ahead [34]. According to Fakhir students can get access to a wide variety of learning resources through their devices that are connected to the internet while being seated in the comfort of homes [32].

The findings under this theme indicate that the Blended Learning approach to instruction benefits students in terms of its flexibility of learning, vast sources of information and it also covers a lot of content in a short period of time, as well as equip students with computer skills.

5.3. Challenges of Blended Learning

Regarding the challenges that learners encounter when the Blended Learning approach is used, the study found that students encounter challenges such as difficulty understanding some concepts posted in the learning platforms such as Moodle. This is due to the fact that some content requires detailed explanations and with the limited face to face time with the lecturers this becomes difficult. In addition, most of the Moodle platforms that lecturers use do not allow for discussions and engagement in the lessons and therefore understanding what is taught is limited. Another challenge was the students' inability to use or access the different Moodle platforms as they lack computer skills. This finding is in line with Pitikoe et al who found out that while some students excelled in using the platform; others lacked the technological skills to manoeuvre the platform. The participants also lamented that some lecturers did not post materials in Moodle [18].

The study also found that another challenge with Blended Learning had to do with poor internet connections. The students revealed that due to poor network connectivity they have difficulty accessing learning material as well as finishing online exercises, tasks or tests on time. Moreover, due to limited data bundles it becomes difficult for students to access videos and other learning materials posted on the learning platforms. This is in collaboration with Fakhir who said that challenges of Blended Learning include slow internet connections which hinders the learning procedures and causes difficulties when participating in online activities [32]. This also lends support to the findings of Abbacun-Taguic who observed that technological lapses such as unavailability of devices and internet connectivity hinder the success and productive implementation of Blended Learning [9]. The findings indicate that the students' experiences on the use of Blended Learning are both pleasant and unpleasant. While the students felt that the Blended

Learning approach was beneficial to them, they also pointed to the challenges that it has.

6. Conclusion

The study concludes that the use of the Blended Learning approach at university level is experienced positively and negatively by students. This is because of the many benefits that it has on learning as well as the challenges that learners experience when it is used. The challenges can, however, be minimised as can be seen in the recommendations.

7. Recommendations of the Study

In line with the findings and conclusions, the study recommends the following:

1. The Ministry of Education should provide basic knowledge of ICT from as early as primary school so that by the time learners get to university they will be fully grasped in technology.
2. Institutions of higher learning must work with the relevant network operators (Eswatini MTN and Eswatini Mobile) to provide unrestricted data and network services to students.
3. Lecturers should use learning platforms that allow for interactions, discussions, and detailed explanations of concepts.
4. Topics should be thoroughly scrutinised so that simpler topics can be dealt with online, and difficult ones done face to face.

Abbreviations

ICT	Information and Communications Technology
MTN	Mobile Telephone Networks

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Rizvi, Nurat, Fatima., Gulzar, Saleema., Nicholas, Wachira., & Nkoroi, Beatrice. (2017). Barriers in adopting Blended Learning in a private university of Pakistan and East Africa: Faculty members' perspective. *Health*, 3(5), 1–7.
- [2] Garrison, Randy., & Kanuka, Heather., (2004). Blended Learning: Uncovering its transformative. potential in higher education. *The Internet and Higher Education* 7(2), 95-105.
- [3] Aleksić, Veljko., & Ivanović, Mirjana., (2013). Blended Learning in Tertiary Education: A Case Study. *BCI*, 13, 96-103.
- [4] Collis, Betty., & Moonen, Jef., (2001). Flexible Learning in a Digital World: Experiences and Expectations. Kogan Page.
- [5] Rovai, Alfred., & Jordan, Hope., (2004). Blended Learning and Sense of Community: A Comparative Analysis With Traditional And Fully Online Graduate Courses. *International Review of Research in Open and Distance Learning*, 5(2).
- [6] Marunić, Gordana., & Glažar Vladimir., (2015). Challenges Of Blended Learning. Scientific Proceedings Xxiii International Scientific-Technical Conference, 3, 61-64.
- [7] Kaur, Manjot., (2013). Blended Learning- its challenges and future. 3rd World Conference on Learning, Teaching and Educational Leadership (WCLTA-2012) *Procedia - Social and Behavioural Sciences*, 93, 612-617.
- [8] Castle, Sidney., & McGuire, Chade., (2010). An Analysis of Student Self-Assessment of Online, Blended, and Face-to-Face Learning Environments: Implication for Sustainable Education Delivery. *International Education Studies*, 3(3), 36-40.
- [9] Abbacun-Tuguic, Lalin., (2021). Challenges of the New Normal: Students' Attitude, Readiness and Adaptability to Blended Learning Modality. *International Journal of English Literature and Social Sciences*, 6, (2).
<https://doi.org/10.22161/ijels.62.65>
- [10] McCarthy, Joshua., (2010). Blended Learning Environments Using Social Networking Sites to enhance the first year experience. *Australian Journal of Technology*, 26(6), 729-740.
- [11] Alebaikan, Reem., (2010). Perceptions of Blended Learning in Saudi Universities. Unpublished PhD thesis, University of Exeter, Exeter, England.
- [12] Almalki, Aidd., (2011). Blended Learning in Higher Education in Saudi Arabia: A Study of Umm Al-Qura University. PhD thesis, Umm Al-Qura University.
- [13] Kumi-Yeboah, Alex., Young, William., & Boadu, Kwesi., (2014). 21st Century Distance Learning in Sub-Saharan Africa: Distance and Blended Learning in Ghana.
- [14] Thomas, Pynchon., (2008). Managing the Change towards a Blended Learning Model At The University of Botswana. *NAWA Journal of Language and Communications*, 2(1), 106-125.
- [15] Oh, Eunken., & Park, Sungjin., (2009) How are universities involved in Blended instruction? *Educational Technology and Society*, 12 (3), 327-342.
- [16] Fresen, Jill., (2010). Factors influencing lecturer uptake of e-learning. *Teaching English with Technology, Special Edition on LAMS and Learning Design*, 10(3), 81-97.
- [17] Tshabalala, Mswazi., Ndeya-Ndereya, Charity., & van der Merwe, Tiana., (2014). Implementing Blended Learning at a Developing University: Obstacles in the way. *The Electronic Journal of e-Learning*, 12(1), 101-110.
- [18] Pitikoe, Selloane., Ilongo, Fritz. G., & Mavimbela, Happines., (2021). Sinking Or Swimming?: The Role Of Moodle In Promoting Self-Directed Learning At The University Of Eswatini. In *Re-Envisioning and Restructuring Blended Learning for Underprivileged Communities*, pp. 204-224.

- [19] Evans, Harry., (2021). Newspapers' coverage of the COVID-19 pandemic in Eswatini: from distanced representations to socio-health panics. *Humanit Soc. Sci. Commun*, 8, 328 <https://doi.org/10.1057/s41599-021-01012-4>
- [20] Bouilheres, Frederique., Le, Luh Thy V., McDonald, Scott., Nkhoma, Clara., & Jandug-Montera, Lilibeth., (2020). Defining student learning experience through Blended Learning. *Education and Information Technologies*, 25, 3049-3069.
- [21] López-Pérez, Maria., Pérez-López, Carmen., & Rodríguez, Ariza, Lozano., (2011). Blended Learning In Higher Education: Students' Perceptions And Their Relation To Outcomes. *Computers and education*, 56(3), 818-826.
- [22] Huang, Qiang., (2016). Learners' Perceptions of Blended Learning and the Roles and Interaction of f2f and Online Learning. *ORTESOL Journal*, 33, 14-33.
- [23] Armellini, Alejandro., Antunes, Virginia. Teixeira., & Howe, Henry., (2021). Student Perspectives on Learning Experiences in a Higher Education Active Blended Learning Context. *TechTrends*, 65, 433-443.
- [24] Meyer, Salome., Wohlers, Shane., & Marshall, Bob., (2014). Blended Learning: student experiences. In B. Hegarty, J. McDonald, & S.-K. Loke (Eds.), *Rhetoric and Reality: Critical perspectives on educational technology. Proceedings ascilite Dunedin*, 89-98).
- [25] Kavitha, Reddy., & Jaisingh, Walia., (2018). A Study on the Student Experiences in Blended Learning Environments. *International Journal of Recent Technology and Engineering*, 7(4), 183-186.
- [26] Kumar, Ashwin., (2012). Blended Learning in higher education: A comprehensive study. *Proceedings of International Conference on Business Management & Information Systems*.
- [27] Richardson, Jeniffer., & Ice, Phil., (2010). Investigating students' level of critical thinking across Instructional strategies in online discussions. *Internet and Higher Education*, (13)1.
- [28] Chan, Esther., (2019). Blended Learning Dilemma: Teacher Education in the Confucian Heritage Culture. *Australian Journal of Teacher Education*, 44(1). <https://doi.org/10.14221/ajte.2018v44n1.3>
- [29] Firdaus, Firdans., Muntaqo, Rifqi., & Trisnowati, Eli., (2020). Analysis of Student Readiness for Blended Learning Model Implementation in Industrial Era 4.0. *Indonesian Journal of Science and Education*, 4(1), 48-56.
- [30] Tang, Chun., & Chaw, Lee Yen., (2013). Readiness for Blended Learning: Understanding attitude of university students. *International Journal of Cyber Society and Education*, 6(2), 79-100.
- [31] Hancock, Burton., & Wong, Kung Teck., (2012). Blended Learning http://sites.wiki.ubc.ca/etec510/Blended_Learning#cite_note-3
- [32] Fakhir, Zahedy., (2015). The Impact of Blended Learning on the Achievement of the English Language Students and their Attitudes towards it. Master's thesis, Middle East University.
- [33] Szadziwska, Arleta., & Kujawski, Jaroslaw. (2016). The Usefulness of the Blended-learning Method in the Opinion of Full-time Students of the Gdansk University, *Proceedings of EDULEARN 2016 Conference*, 4th-6th Barcelona, pp. 1792-1801.
- [34] Smyth, Siobhan., Houghton, Catherine, Cooney, Adeline. & Casey, Dympha., (2012). Students' Experiences Of Blended Learning Across A Range Of Postgraduate Programmes. *Nurse Education Today*, 32(4) 460-468.
- [35] Uğur, Benlihan., Akkoyunlu, Buket., & Kurbanoglu, Serap., (2011). Students' Opinions On Blended Learning And Its Simple Mentation In Terms Of Their Learning Styles. *Education and Information Technologies*, 16(1), 5-23.
- [36] Kim, Ji Young., (2012). A Study On Learners' Perceptual Typology And Relationships Among The Learner's Types, Characteristics, And Academic Achievement In A Blended E-Education Environment. *Computers & Education*, 59(2), 304-315.
- [37] Harrington, Rick., & Loffredo, Donald., (2010). MBTI Personality Type and Other Factors That Relate To Preference For Online Versus Face-To-Face Instruction. *The Internet and Higher Education*, 13(1), 89-95.
- [38] Hofmann, Jan., (2014). Solutions to the top 10 Challenges of Blended Learning. Top 10 Challenges Of Blended Learning. www.cedma-europe.org
- [39] Benson, Vladlena., Anderson, Debora., & Ooms, Ann., (2011). Educators' Perceptions, Attitudes, & Practices; Blended Learning in Business & Management Education. *Research in Learning Technology* (19) 2, 143-154.
- [40] Mirriahi, Negin., Alonzo, Dennis., & Fox, Bob., (2015). A Blended Learning Framework For Curriculum Design And Professional Development. *Research in Learning Technology*, 23(1), 28451.
- [41] Denzin, Norman., & Lincoln, Yvonna., (2003). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln. (Eds.). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage.
- [42] Creswell, John., (2012). *Qualitative inquiry & research design: choosing among five approaches* (4th Ed.). Thousand Oaks, CA: SAGE.
- [43] Creswell, John., (2013). *Research design: Qualitative, quantitative, and mixed methods approach*. Thousand Oaks: Sage publications.
- [44] Yin, Robert., (2012). *Applications of case study research. 3rd edition*. London: Sage.
- [45] Pandey, Prabhat., & Pandey, Mishra., (2015). *Research Methodology: Tools and Techniques*. Bucharest: Bridge Center.
- [46] Zaidah, Zainal., (2007). Case study as a research method. *Journal Kemasyarakatan*, 9, 1-6.
- [47] Bandele, Sannel., (2004). *Educational research in perspectives* (1st Ed.). Ibadan: Niyi comm. and Printing Ventures.

- [48] Brink, Hillia., & Rensburg, Van. (2012). *Fundamentals of research methodology*. Cape Town: Juta & Co. (Pty) Ltd.
- [49] Ary, Donald., Jacobs, Lucy., Razavieh, Asghar., & Sorensen, Christine. (2006). *Introduction to research in education* (7th Ed.). Toronto: Thomson Wadsworth.
- [50] McCombes, Shona., (2019). *An Introduction to Sampling Methods*. Accessed from <https://www.scribb.com/sampling-methods/html>
- [51] Bless, Claire., & Higson-Smith, Craig., (2000). *Fundamentals of Social Research Methods an Africa Perspective*. Cape Town: Juta and Company.
- [52] Taherdoost, Hamed. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5(2), 19-27.
- [53] Blanche, Terre Martin., Durrheim, Kevi., & Painter, Desmond., (2006). *Research in practice*. Cape Town: Cape Town Press.
- [54] White, Marylin. Domas., & Marsh, Emily., (2006). Content Analysis: A Flexible Methodology. *Library Trends*, 55(1), 22–45.
- [55] Douglas, Benedict., (2015). *Theory and Practice of Development Education*. New York: Routledge.
- [56] Nieuwenhuis, Jan., (2007). Martini Qualitative Research, Not Stirred, University of Pretoria, South Africa.
- [57] Taylor, Anna., (2021). A challenge in qualitative research: Family members sitting in on interviews about sensitive subjects. [Wileyonlinelibrary.com/journal/hex](https://www.wileyonlinelibrary.com/journal/hex) 1545.
- [58] McMillan, James., & Schumacher, Sally., (2010). *Research in Education*. Boston: Pearson.
- [59] Babbie, Earl. (1992). *The Practice of Social Research*. New York: Macmillan.
- [60] Henning, Elizabeth., Van rensburg, Wilhelm., & Smit, Brigitte., (2004). *Finding your way in qualitative research*. Pretoria: Van Schaik Publishers.