



# Perception of Students Regarding the Support Received During Covid-19: A Case Study of One of the South African Rural Universities

M. Mbodila<sup>1</sup>(✉), T. Mfikoyi<sup>2</sup>, O. A. Esan<sup>1</sup>, and M. Mbodila<sup>1</sup>

<sup>1</sup> Department of Information Technology Systems, Walter Sisulu University, Eastern Cape, South Africa

{mmbodila, oesan, mumbodila}@wsu.ac.za

<sup>2</sup> Directorate of Learning and Teaching, Walter Sisulu University, Eastern Cape, South Africa  
tmfikoyi@wsu.ac.za

**Abstract.** The outbreak of COVID-19 and the lockdown of all activities forced the education systems across the world and particularly in South Africa to change the mode of teaching from face-to-face to online. This rapid shift has brought about many changes in all sectors, especially in the field of education. Universities across South Africa particularly contact institutions, were affected and enforced lockdowns that extremely prevent face-to-face interaction between teachers in the classroom and students. In the absence of face-to-face teaching and on-site student support, computer-based learning has emerged to substitute for offline teaching and student support. In contrast to such background, it is relevant to investigate students' perceptions regarding the support received during Covid-19. This paper aims to report on students' perceptions of the effectiveness of the support received during the Covid-19 pandemic and their readiness for emergency remote teaching (ERT) adopted by the University. Data were obtained during a pilot study involving 125 students from various levels on one campus of the institution; using an online survey with a standard Likert scale to determine the extent to which students were satisfied with the quality of support received. The results show that most participants agreed or strongly agreed that the support received was adequate. However, issues such as connectivity, data, lack of proper devices as well as personal challenges were raised. To mitigate these challenges, the institution put in place strategies for each Faculty to respond to students' queries. This paper has implications for policymakers about student support.

**Keywords:** E-learning · COVID-19 · Students support · Teaching · learning · emergency remote teaching · Technology Education

## 1 Introduction

The impact of information communication technology (ICT) on human activities is immense and its role in various sectors, especially in education cannot be ignored. The outbreak of COVID-19 and the lockdown of all activities forced the education systems across the world and particularly in South Africa to change the mode of teaching

from face-to-face to online. This rapid shift has brought about many changes in all sectors, especially in the field of education. Universities across South Africa particularly contact institutions, were affected and enforced lockdowns that extremely prevent face-to-face interaction between teachers in the classroom and students. In this scenario, the contribution of information communication technology gained momentum due to the closure of educational institutions which raises challenges for students learning. The use of ICT during this lockdown period served as a solution for people to keep in contact as well as ongoing education using online platforms [1, 2]. The availability of various ICT resources and technologies has provided the opportunity for higher education institutions globally and in South Africa to implement a variety of IT solutions and interventions to make sure that teaching and learning continue to take place as well as evaluation of students' activities for the completion of their program. The main goal of this innovative intervention was to minimize the learning gap that arise due to the restrictions of the pandemic and lockdown. In this process, management, teachers, students, institution administrators, and student support units have put all the effort into the optimal use of technology and its efficient application in the process of learning and teaching [3].

The use of technology during the outbreak of COVID-19 and lockdown was accepted and appreciated by educational institutions and students across the world and South Africa included. The main reason for this acceptance was to leverage face-to-face teaching using technology that is easy to use, gives flexibility for learners and teachers as well as having a manageable platform. According to Clever and Mbodila (2022), several benefits abound in integrating information technologies in learning and teaching. However, the acceptance of technology should not be taken as a given as teacher belief in the use of technology can have an impact on technology acceptance in the higher education sector globally [4].

However, given all the advantages offered by using ICT, there are still several limitations that hide teachers and students from experiencing its full use. Challenges, such as training, connectivity, face-to-face interaction, data, lack of proper devices as well as personal challenges were raised as a challenge. The present study sought to investigate students' perceptions about the effectiveness of the support received during the Covid-19 pandemic and their readiness for emergency remote teaching (ERT) adopted at a historically disadvantaged university in the Eastern Cape province of South Africa. The university is a result of a merger of two polytechnic colleges and a university, which operates under a divisional governance model and has four semiautonomous campuses. The university identifies itself as an impactful and technology-infused African university, foregrounding technology as a critical tool for learning and teaching [5]. Although the university introduced blended learning in 2006 as the learning and teaching strategy in the center for learning and teaching development founding document (CLTDFD) [6], a very low adoption rate has been witnessed over the years, from less than 20% in 2014 to 48% in 2019 [5].

## 2 Literature Review

In the literature, much research on examining students' perceptions of and expectations of e-learning has increased in recent years [7, 8]. During the Covid-19 pandemic, many

students have shown the success and benefits of e-learning. Hence, it widely promoted as a teaching strategy by numerous higher education institutions worldwide [4]. It has been proven that the use of e-learning offers varieties of teaching strategy benefits in education compared to face-to-face [4]. Due to its growth in popularity, some researchers have argued that it is becoming more and more necessary to understand students' perceptions of the use of these modern technologies. It has been shown also that most students taking online courses are happy with their experience [9]. However, studies also show that a wide range of characteristics influence how people perceive learners [10–13]. Some researchers have also argued that factors such as background, age, gender, digital literacy skills as well as individual learning styles are key indicators of students' adoption of technology [9, p.14–16]. In addition, factors such as simplicity, adaptability, and superior environment management are particularly relevant for students. Nevertheless, despite its many benefits, e-learning has several drawbacks, including social isolation, a lack of student-teacher connection, connectivity challenges, and others [17, 19]. Even though e-learning is widely used in higher education around the world, most institutions in South Africa never regarded it as a part of formal education until the recent advent of Covid-19 [3, 4, 19, 20]. Online help, which offers a variety of benefits to students, improves students' comprehension of a particular task or piece of knowledge by giving them a variety of learning approaches to answer questions [21, 22]. In contrast to emergency remote teaching (ERT), online learning is a well-planned process with unique pedagogical aspects, such as modality, the function of the online evaluation, and the instructor's role [23].

During the outbreak of Covid-19 and lockdown numerous universities around the world and in South Africa particularly, including face-to-face universities embraced e-learning and emergency remote teaching (ERT) so that continuing teaching and learning can be delivered without being significantly impacted during the quarantine period [4, 14, 20]. According to the literature, online learning is accessible, voluntary, and always supported by faculty and students, in a contract with ERT, which is urgent and often designed to be remote and inaccessible [4, 24].

In the context of South Africa, rural institutions, and those with a lack or little luxury to implement fully online learning, were forced to move their face-to-face activities to change the online mode adopting ERT. Administration, students support activities, and mode of instruction in most of these institutions was moved to online platforms and necessary steps were put in place to conduct efficient ERT using various digital technologies so that continuing education can be delivered without being significantly affected by disruption during the quarantine period [4, 20]. E-learning, like any other online technique of instruction, offers benefits and drawbacks for both teachers and students. Along with the lockdown, further advantages of e-learning during the Covid-19 pandemic worth considering are convenience and accessibility of resources independent of place or time and cost saving. Online courses also have restrictions, such as limited internet access, internet connectivity, and digital literacy skills on the part of students especially first-entering students or those from disadvantaged rural background education. In line with the above, it would be interesting to investigate whether the students were comfortable with the support received during the Covid-19 pandemic.

Therefore, the goal of this study was to ascertain how students in one South African rural university felt about the support they received during the implementation of ERT during Covid-19.

3 The Current Case Study

The South African higher education systems serve as the case study’s context, and there are significant degrees of disparity amongst institutions because of their disparate geographic locations, levels of resources, and cultural, racial, and political [25, 26]. Eastern Cape is one of the poorest provinces in South Africa, and it is where most of the university students in this case study attended their high school. According to student tracking unit reports on the first-time entering students (FTENs) profiles in 2021, around 88% of the FTENs students admitted were from underprivileged backgrounds and they are the first generation to enter university from their families [20]. The current institution under the case study used blackboard as their learning management system (LMS) before the implementation of covid-19, therefore there was a mechanism in place for blended teaching and learning as well as for information sharing and communication with students [4]. However, many lecturers were not fully utilizing the LMS to improve teaching and learning. Some of the factors contributing to this slow adoption are digital literacy skills, connectivity, network coverage, and others. Many academics and students found it difficult to use the LMS to its full potential because of these challenges.

During covid-19, a multi-modal strategy was suggested by the institution to overcome some of these challenges and the piloted steps (see Fig. 1).

The testing procedure in the above phases, was academic and scientific sound addressing critical implications to produce a coherent and transparent plan. The selection procedure, implementation strategy, and rollout were done weekly for a period of four weeks. The weekly processes during the pilot involved the selection of the online platform (LMS, Zoom, or Microsoft Teams), online classes (synchronous or Asynchronous), activities (lectures, assessment, or discussions), and feedback from participants in the pilot (Students and Lecturers).

<b>PHASE 1</b> <b>Lockdown Level 5</b> <ul style="list-style-type: none"><li>• Needs assessment for online learning.</li><li>• Senate approval of Emergency Teaching and Learning Plan.</li></ul>	<b>PHASE 2</b> <b>Lockdown Level 4</b> <ul style="list-style-type: none"><li>• Pilot testing for remote learning.</li><li>• Asynchronous learning continues for all students.</li><li>• University academic calendar amendment.</li><li>• Remote learning continues.</li></ul>	<b>PHASE 3</b> <b>Lockdown Level 3</b> <ul style="list-style-type: none"><li>• Distribution of laptops and loading of data for students.</li><li>• Decision to delay return of students until beginning of September.</li><li>• Remote learning continues.</li></ul>	<b>PHASE 4</b> <b>Lockdown Level 2</b> <ul style="list-style-type: none"><li>• Preparations for return of 50% of the students.</li></ul>	<b>PHASE 5</b> <b>Lockdown Level 1</b> <ul style="list-style-type: none"><li>• Hundred per cent of the students return.</li><li>• Online learning continues with restricted F2F contact only for practical subjects.</li><li>• Collection of laptops continues for those students who could not be reached during levels 2, 3 and 4.</li><li>• Implementation of alternative assessment where necessary.</li></ul>
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Fig. 1. Summary of phases of the online multi-modal teaching approach [5]

## 4 Theoretical Framework

Due to the outbreak of the Covid-19 pandemic, many institutions, including WSU, canceled face-to-face (F2F) classes and moved all their courses online to continue teaching and learning while keeping both staff and students safe during periods of hard lockdown. As a result, distance learning, remote learning, and eLearning approaches have taken center stage during the pandemic and have been adopted by many institutions to varying degrees [28]. Adoption of educational technology in South African higher education institutions, which was slow and patchy pre-pandemic, changed during the pandemic, saving academic the year [29]. This has paved the way for a post-pandemic restructuring of teaching and learning. The widespread use of technology in education has led to a shift in education from closed models and teacher-centered approaches to a more open and student-centered approach to teaching and learning [30].

Laurillard's conversational framework has been identified as a suitable framework to underpin the practice of integrating ICT into learning and teaching. This framework identifies the features of learning encounters and from these features, it develops the learning experience. This study seeks to hear the students' voices on their experiences and the support they received during the lockdown period. Laurillard describes learning as a process involving an ongoing, repetitive dialogue between teacher and student that uncovers the perceptions of the participants and their differences. There is no escape from the need for dialogue, no room for mere storytelling and practice without explanation, experimentation without reflection, and student action without feedback [31, 32].

## 5 Methodology

The South African higher education systems serve as the case study's context, and there are significant degrees of disparity amongst institutions because of their disparate geographic locations, levels of resources, and cultural, racial, and political [25, 26]. The Eastern Cape, one of the poorest provinces in the nation, is where many of the university students in this case study attend high school. From the study in [33], majority of the students at this university come from underprivileged background, and this was also attested to from the report generated by university student's unit in 2021 on the first-time entering student (FTENs) university profiles. This report indicated that many of these students were the first to go to university in their family [28].

### 5.1 Sampling and Population

Sampling is defined as a process of choosing a subset of the population of interest in a research study [34]. It allows the researcher a more practical approach or data collection in a faster and lower-cost way than attempting to reach out to each member of the population. This study consists of 125 students doing levels 1, 2 and 3 from the faculty of Science, Engineering and Technology from a public university. One of the widely used techniques to identify and select information-rich cases in qualitative research is purposeful sampling [35]. This technique allows the researcher to purposely identify and select individuals or a group of individuals who are knowledgeable and have experience

in the phenomenon of interest and who are available to participate in sharing their experiences [36]. This study utilized a 5- point Likert scale [0 = strongly disagreed, 1 = disagreed, 2 = fair, 3 = partially agreed, 4 = agreed, 5 = strongly agreed] as the main constructs to measure the respondent’s level of agreement/disagreement.

5.2 Method of Data Collection

A survey was conducted by sending out questionnaires to all 125 students who were selected for this study. In the first part of the questionnaire, data were collected about the platforms students preferred for lectures and interaction with other students; and challenges experienced when using these platforms. The second part of the questionnaire focused on students’ home environments and how these affected their internet access. The third and last part of the questionnaire looked at the students ‘living arrangements and if these had any impact on their learning.

6 Results and Discussion

The study also sought to identify preferable platforms and any challenges experienced during live lectures and stimulating interaction with students during online lectures (see Fig. 2).

Figure 2 shows that participants indication on using various platforms for sharing and conducting live classes; 60% of the students shows that they used the LMS (WiSeUp) to download study material that was zero-rated by various mobile services, 10% shows they used zoom, 25% students indicated that Microsoft Team was the platform most frequently used for synchronous, live classes and 25% indicate the use of blackboard collaborate and only 5% used google classroom. Similarly, when asked if they were able to log in to join ‘live’ lectures, hear the lecturer clearly, and interact with the lecturer during online lessons, the participants indicated that the internet connection was a challenge most of the time during synchronous classes.

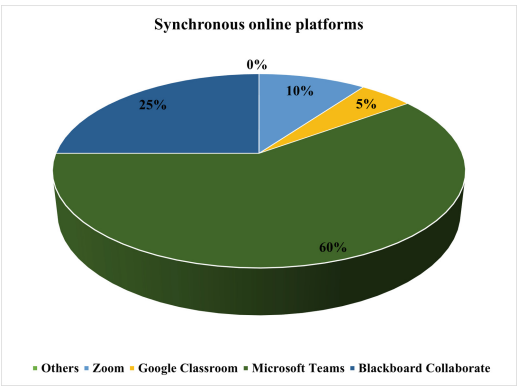


Fig. 2. Synchronous interaction with students during online lectures.

Hence, they experienced challenges in joining live lectures, and hearing the lecturers clearly while interacting with the rest of the class. The issue of network coverage in certain parts of South Africa, particularly in the rural areas in the Eastern Cape province, is still a significant delaying aspect in rolling out online teaching and learning at WSU. Students’ home environments as shown in this case study presented obstacles for students studying from home during the lockdown. Some students live in small households with their siblings and extended family members. These experiences further militate against participation in synchronous learning for students living in these circumstances.

6.1 Support Received

A standard Likert scale [0 = strongly disagreed, 1 = disagreed, 2 = fair, 3 = partially agreed, 4 = agreed, 5 = strongly agreed] was used to determine the extent to which students were satisfied with the quality of ‘help’ received from support staff, such as ICT and faculty offices (see Figs. 3, 4 and 5). In response to the type of support that students received from faculty/ department, Fig. 3 shows that 13.9% strongly disagree that they received support from faculty, 18.6% disagreed, 20.9% said they support from faculty or department is fair, 13.9% partially agree with the support as many said they expect more from faculty, 20.9% agreed that the department/faculty gave them support during the teaching and learning using the e-learning platform and 11.6% said they strongly agreed that there was support from faculty/department in order for them to successfully use the e-learning platform during the covid-19 felt that that support was sufficient.

Having obtained the students perception on support received, then the issue of students’ satisfaction with the lecturer’s support was another question asked. From the participant responses, 16.2% strongly disagreed that the received support from the lecturer, 14.9% disagreed, 16.2% said the support they received is fair, 9.3% said they received partial and not full support, 18.6% agreed that they received support and 16.2% strongly agreed with the support they received from the lecturer see Fig. 4. It is worth noting that lecturers who often interact with students online would have provided more assistance than those who are not familiar with the use of the platform.

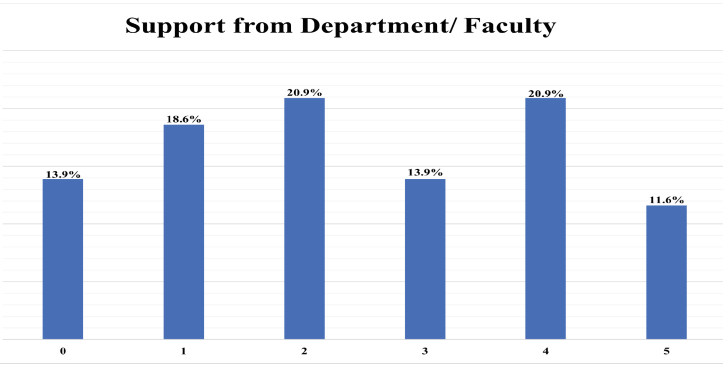
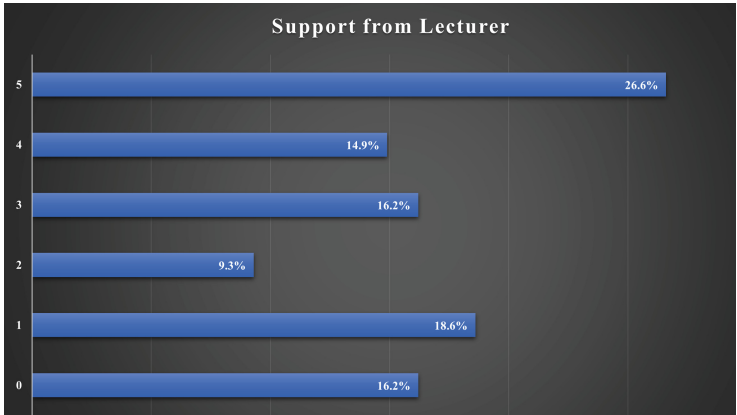
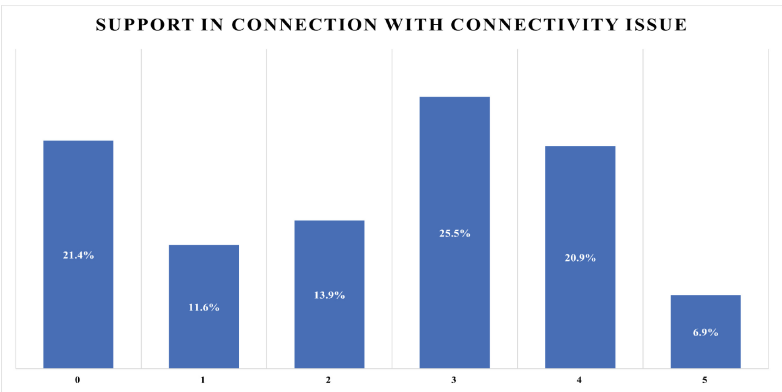


Fig. 3. Students’ overall satisfaction with the support received Department/Faculty.



**Fig. 4.** Students’ overall satisfaction with the support received lecturer.



**Fig. 5.** Students’ overall satisfaction with the ICT support received

Furthermore, the question regarding the support students received regarding ICT related assistance was also raised. The response of the participant see Fig. 5.

Figure 5, 21.4% said they strongly disagreed that they received support from ICT, 11.6% also disagreed, 13.9% said the support the received is fair, 25.5% partially agreed that they received support, 20.9% agreed that the support was there, and 6.9% strong agreed that they received support regarding the ICT related challenges while using e-learning platform for learning and teaching. From these findings, one can see that over half of the respondents expressed dissatisfaction with ICT supports a source of worry. Looking at the responses from the students, it is evident that students varied from one group to another depending on various situations addressed earlier on the use of technology for teaching and learning. For most students, before the pandemic, few of their courses have an online presence due to lecturers’ and students’ resistance to technology or a lack of devices, bandwidth, and educational technology expertise [5]. However, the



pandemic forced the institution's hand in the use of technology, and the achievement of the goal of blended learning was put in place.

## 7 Discussion

The closure of universities and the cancellation of face-to-face teaching and learning has caused much uncertainty and anxiety among students and staff in higher institutions of learning across the globe. The findings from the perception of students regarding the assistance they received during the COVID-19 pandemic were conducted on 125 students from one of the rural universities in South Africa. Their responses reveal that the students are mostly dissatisfied with every aspect of the support they required to pursue their academics during this period from the faculty/departmental levels, lecturers, and ICT-related issues. This can be attributed to the under-preparedness of the university and students to face emergencies from all spectrums of academic life. The socio-geographical position of the university and the student community also contributed to the predicament as many students were to study effectively from home, thus making online learning ineffective. Furthermore, many students are ill-prepared for self-regulated learning. Considering the new online emergency learning, students reiterated that the universities do not have the appropriate infrastructure or resources to facilitate effective online teaching during pandemic.

A sudden shift or migration to online teaching can be a challenge. It has been noted that most students seem to lack the necessary skills in the usage of online platforms, software and programmes required for their studies. The students were also challenged with applying advanced settings to some software and programmes, which were not prominent during the face-to-face teaching time. These challenges, therefore, make it necessary to upskill both students and lecturers in online learning and teaching.

## 8 Conclusion and Recommendations

Methodologically, the study drew on 125 students' responses to a descriptive research design questionnaire to collect data from convenience-based purposive sampling. The empirically approved study explored the students' perceptions of students regarding the support they received in terms of teaching and learning during the Covid-19 pandemic at one of the South African rural universities. The participants were drawn from undergraduate national diploma students from levels 1–3 respectively in the Faculty of Science, Engineering and Technology from the university to assess their level of satisfaction on the support they received during online teaching and learning as well as the university ICT technical support they received. The research findings are significant in that they have implications for students' university satisfactory levels in terms of improving their digital readiness by adopting creative pedagogies for online teaching and learning to promote active student engagement in and overall satisfaction with online learning.

The results also highlighted that although pandemic conditions may present challenges for education, it has helped higher education institutions to craft long-term solutions. Based on the students' responses from the survey as well as their experience during online teaching during covid-19, moving forward, the institution has implemented

a well-thought-out blended learning approach that will continue to leverage the use of technologies and student support post-covid-19. Furthermore, the results highlighted the need to improve the technological skills of lecturers and students. Finally, the study findings have implications on university technological infrastructure as many of the participants raised challenges with regard to adequate network coverage and reliable internet connectivity, which has implications for higher education to extend the reach of online education to historically disadvantaged students.

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