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# Undergraduate Students' Experiences with Electronic Learning Platforms During the Covid-19 Pandemic at a Rural-Based Tertiary Institution in South Africa

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Abstract. The Covid-19 pandemic necessitated a transformative shift in the South African education sector, compelling universities to adopt electronic learning platforms (E-LPs) as the primary mode of delivering lectures during the pandemic. However, there is a dearth of systematic literature documenting the implications of migration to this electronic-based model for undergraduate teaching and learning in South African rural-based universities. Addressing this research gap, this qualitative study drew on transitional distance theory (TDT) to identify the challenges associated with electronic learning (e-learning). The study also examined the implications of these challenges for teaching and learning, based on experiences of 30 purposefully selected undergraduate students at the University of Venda, in the rural Limpopo province of South Africa. A thematic narrative analysis of the students' experiences shows three major challenges as encapsulating the use of E-LPs: practical unpreparedness and lack of skills needed for online learning; complicated domestic obligations; and inefficient interactions with lecturers and peers, which were limited by lack of physical contact. These findings add to the growing body of literature on the impact of Covid-19 on learning at institutions of higher learning in South Africa. The findings have implications for discussions on gender inequality in the domestic sphere in South Africa, as well as the material disparities between traditionally White universities and rural-based universities in South Africa. Based on these findings, it is recommended that ruralbased tertiary institutions in South Africa implement effective strategies to enhance students' computer skills and familiarize them with E-LPs at the early stages of their tertiary education.

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**Keywords:** Covid-19; electronic learning; online learning; rural-based university; undergraduate students

#### 1. Rationale

Prior to the Covid-19 pandemic, the traditional face-to-face method of teaching was the main method used for administering lectures in most rural-based¹ universities in South Africa (Abdullah et al., 2019). When e-learning was used, it was often restricted for the purposes of teaching students studying on a part-time basis, or for students registered for distance learning programs (Abdullah et al., 2019). It was not until 2020 that electronic learning platforms (E-LPs) became very common in such South African institutions. With the imposition of South Africa's compulsory national lockdown, rural-based tertiary institutions, especially those from historically Black backgrounds, were forced to move from the traditional face-to-face learning to the use of several E-LPs, mixing them with reduced use of face-to-face methods when this was both possible and permitted by state regulations (Mhlanga & Moloi, 2020).

The University of Venda is one of the historically Black universities in South Africa, located in the semi-rural city of Thohoyandou in the Limpopo province of South Africa. At this institution, migration to e-learning entailed the official use of different E-LPs for the administration of course modules in the first three months of the pandemic and lockdown. During this period, all learning took place exclusively through multiple E-LPs, while the institution maintained that a return to face-to-face teaching was still envisioned and preferred. Learning occurred primarily through the Blackboard, Moodle, Microsoft Teams, and Google Classroom platforms. These platforms offer forums for posting essential information; e-mailing options for interactions between students and lecturers, and among students; online audio posting (asynchronous communication); and voice chats, (synchronous communication), glossaries, and surveys (collective construction and interactive tools).

The platforms also had options for documenting student profiles, academic activities, registrations, and daily activities (administrative tools), making group presentations, and included databases for activities, and frequency controls. By adopting these platforms for teaching and learning, the university was able to ensure continuous administration of its academic modules, despite the enforcement of the South African national lockdown that prohibited physical interactions during the pandemic (Amaechi et al., 2021; Marinoni & van Land, 2020).

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<sup>&</sup>lt;sup>1</sup> The concept "rural based" in the context of this study is used synonymously with "historically Black and disadvantaged universities/tertiary institutions". These universities were established under the apartheid regime in South Africa to serve Black African students, who at the time were banned from attending segregated Whites-only universities. The universities were poorly funded compared to the Whites-only universities/tertiary institutions. They were intended to perpetuate the racially defined, divided social order within South African society (Kurtz et al., 2022).

However, for efficient use of E-LPs, students need access to reliable internet connectivity through which to participate and interact with lecturers and peers during the online lectures (South Africa. DHET, n.d.). They also need to have sufficient digital literacy and adequate personal and institutional technological infrastructure that supports the use of E-LPs (Almaiah et al, 2020; Aucejo et al., 2020). When these elements are not available, students are likely to have a fragmented experience that discourages disposition to learning. Yet, there is a lack of systematic literature that comprehensively documents these challenges and their implications in the context of South African rural-based universities.

The current study addresses this gap by exploring undergraduate students' experience with e-learning during the Covid-19 pandemic at the University of Venda in the Limpopo province of South Africa. More specifically, it attends to the following key objectives:

- a) to identify challenges associated with using E-LPs during the Covid-19 pandemic; and
- b) to determine how Covid-19 affected effective learning at the University of Venda

By addressing these objectives, the study adds to the expanding body of literature that explores the repercussions of the Covid-19 pandemic on teaching and learning in higher education in South Africa.

#### 2. Literature Review

Several studies (Aucejo et al., 2020; Demuyakor, 2020; Marinoni & van Land, 2020; Mtshweni, 2022; Owusu-Fordjour et al., 2020; South Africa. DHET, n.d.) have documented how university students from around the world (especially those from sub-Sahara Africa) struggled to migrate from traditional face-to-face learning to the use of E-LPs at the dawn of the Covid-19 pandemic. These studies have revealed how students and tertiary institutions, from mostly underresourced rural settings, struggled to adapt to e-learning learning platforms. In most cases, the issue revolved around students and lecturers lacking the prerequisite information and communications technology (ICT) know-how for online platforms (Owusu-Fordjour et al., 2020). In other cases, it was a question of the institutions lacking the required funds to provide adequate ICT infrastructure for online lectures (South Africa. DHET, n.d.). Consequently, some institutions had to either abandon or suspend the administration of certain modules during the 2020 and 2021 academic years.

In more resourced tertiary institutions (historically Whites-only universities), on the other hand, the migration to E-LPs largely went smoothly (Dampson et al., 2020; Mtshweni, 2022; Paulette & Cartwright, 2022). This is mainly because elearning was already in use in these institutions before the pandemic. Hence, students were already knowledgeable and competent in using such platforms. In addition, students in such institutions had access to reliable internet connectivity and ICT devices. The availability of these resources made the migration to elearning relatively easy. It also became the main basis for justifying advocacy and

complete dependence on e-learning at previously Whites-only universities in South Africa during the national lockdown (Paulette & Cartwright, 2022).

Nonetheless, it seems that the biggest challenges at historically Whites-only universities for undergraduate students have appeared to be psychological issues (Ellis et al., 2020; Paulette & Cartwright, 2022; Serafini et al., 2020). Paulette and Cartwright's (2022) study has particularly shown that in such institutions, students experienced increased difficulties in dealing with issues such as trauma, loss of interest in their studies, irritation, and disappointment. These psychological issues arose mainly due to resentment at the loss of independence at the inception of the South African national lockdown and subsequent rapid changes in learning environments and academic demands. Online learning, for example, meant students had to move back to their parents' houses from their accommodations on the campuses and being unable to engage in extra-mural activities. Students resented losing the temporary freedom and independence they had when living on campuses (Paulette & Cartwright, 2022). These changes understandably generated feelings of irritation and loss of interest to participate in e-learning activities. They also made it difficult for the students to cope with learning during the pandemic.

Recent analyses (Dampson et al., 2020; Mtshweni, 2022) of students' experiences in teaching and learning at less resourced tertiary institutions in South Africa have hardly focused on these kinds of psychological issues. Instead, analyses have focused on how the impoverished backgrounds of the students from less resourced institutions<sup>2</sup> have impacted lack of participation in e-learning. Economically disadvantaged background had a direct impact on students' lack of access to simple resources such as software-compatible phones, tablets, laptops, and other electronic devices with which to log on to E-LPs (Mtshweni, 2022). This means that in situations where blended learning required use of such ready-on-hand technological devices, participation in lectures became almost impossible (Dampson et al., 2020).

Recent studies (Dube, 2020; Mhlanga & Moloi, 2020) have also highlighted lack of access to stable network coverage and internet connectivity as significant elements which hamper participation in e-learning. Dube (2020) specifically documented that amid increased electric power interruptions through continuous blackouts (commonly referred to as "loadshedding") in South African rural areas, students in rural areas also faced the possibility of missing out on valuable information during online classes. This included when the institutions developed "adequate" online platforms for teaching and learning, and when they successfully oriented their students on how to use the newly developed platforms. In these cases, the

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<sup>&</sup>lt;sup>2</sup> The composition of the students at historically White institutions in South Africa has changed significantly in post-apartheid South Africa towards more diversity of White and economically advantaged students. Conversely, the composition of students in historically Black institutions remains mostly Black Africans from mostly poor economic backgrounds that significantly differed from that of students from White and economically improved families (Kurtz et al., 2022).

students still found it extremely difficult to maximize their E-LP experience due to factors outside their control.

The aforementioned challenges not only highlight infrastructural resource constraints of students in less resourced institutions but also draw attention to a need to review the implications of such constraints on effective teaching and learning through E-LPs. The current study addresses this research gap. It identifies significant material and socio-psychological challenges encountered by undergraduate students as they migrated from traditional face-to-face learning to e-learning during the Covid-19 pandemic. The study also investigates how the identified challenges impacted teaching and learning experience at the University of Venda.

Theoretically, the study draws on transitional distance theory (TDT) (Mensch & Ali, 2007). In the context of TDT, teaching and learning are assessed as most effective when they occur along three main elements: attendance to dialogue, structure of the lecture, and learner autonomy. The assumption is that students' learning experiences are hampered when they occur amid inadequate platforms for "dialogues", poorly structured environments, and without room for independent digestion of contents. The infrastructural and skills constraints therefore have far-reaching implications which are beyond mere inconvenience.

## 3. Methodology

The current study adopted an exploratory qualitative approach to explore students' experiences when teaching and learning migrated from the traditional face-to-face method to the newly adopted E-LPs at a rural-based university in South Africa – the University of Venda. Given that one of the focuses of exploratory research is to analyze peoples' feelings and experiences in natural settings and investigate subjects where there is limited or no prior research (Hiver et al., 2022), the approach was well suited for this study.

#### 3.1 Data Collection

The primary method used for data collection was in-depth, semi-structured interviews through a set of questions posed to research participants, with the intention of probing for depth and understanding of the research subject (Gibbs, 2020). Semi-structured interviews were best suited for this study, as such method allows participants to freely articulate "their" realities and experiences of the subject matter that may otherwise evoke emotions of frustration and uncertainty (Hiver et al., 2022).

In all, 30 interviews were conducted over a period of 3 months between February 2020 and June 2020. These interviews were conducted telephonically. The initial plan was to conduct interviews face to face. However, this plan was unfortunately discontinued because of the Covid-19 restrictions in South Africa, which made it impossible to carry out such activities during the pandemic. To protect the study participants, it was necessary to avoid any possibility of physical contact that could potentially put the participants in harm's way.

Before the interviews, conversational rapports were developed with the participants to create a friendly environment for the discussions to occur. Trust, rapport, and comfortability between participants and researcher are important in establishing a successful qualitative research process (Bless et al., 2013). These factors create an environment that enables participants to easily recount their lived experiences.

Furthermore, the participants were provided with detailed information regarding the study, its objectives and aims. They were also provided with information regarding their rights as participants throughout the study. Participants who willingly expressed interest were invited to participate in interviews and asked to sign consent forms.

An interview guide containing key interview questions for the study was also developed before the interview process. This guide was not followed rigidly, however, as the questions were meant to allow the participants to go back and forth on their experiences with e-learning, with the interviewers building on responses from the participants. Discussions in the interviews covered essential aspects of the participants' challenges and how these challenges impacted their ability to learn during the pandemic. The interview time varied from one participant to the other, but on average, each interview lasted for about 30 to 45 minutes. The interviews were recorded with the consent of the participants.

#### 3.2 Population of the Study and Sampling Procedure

Thirty students between the ages of 19 and 27 participated in the study. At the time of the study, these participants were students at the University of Venda. They were selected through a non-probability purposeful and snowball sampling technique that entailed recruiting the initial two participants through the first researcher's contact. From here, other participants were recruited through referral by the initial participants.

The use of the snowball technique for participant recruitment also solidified the building of rapport and trust in the interview process. The referral or use of chain sampling in this method meant that prospective participants in the study were often friends, acquaintances, and classmates of the other participants, who had already built trust relationships within a network (Bless et al., 2013). By virtue of these relationships, most of them had trust and were more comfortable to speak to us about their own experiences of E-LPs during the interviews.

Eligibility for participation was based on the following criteria:

- being a registered undergraduate student at the University of Venda at the time of recruitment for the study and interview;
- b) having registered at least one module for the 2020 academic year; and
- c) having the ability to communicate in English or Tshivenda (the local vernacular).

Detailed biographic information of the participants is summarized in Table 1. As indicated in the table, of the 30 participants, 10 were first year students, 8 second

year students, 6 third year students, and 8 fourth year students. Most of the participants in the study were male (n = 24), with fewer being female (n = 6). As the initial participants of the study were male, it was expected that through snowballing, their network of colleagues and friends would also be male. In terms of the field of study for the participants, however, distribution was more balanced, with each faculty at the university represented by six students.

While the participants may have varied in terms of study area, age, and year of study, the majority of the participants (n = 26) cited the villages surrounding Thohoyandou (the city where the University of Venda is based) as home and where they had grown up. All participants also claimed to have come from poor backgrounds. Only four of the participants grew up in other areas (two each from Polokwane and Johannesburg), other than the surrounding villages near Thohoyandou.

Table 1: Demographic data of the participants

Participant number	Age	Gender	Faculty/department	Level of study (2020 academic year)
1	24	Male	Health sciences	Third year
2	23	Male	Health sciences	Second year
3	25	Male	Law	Fourth year
4	22	Male	Law	Second year
5	21	Male	Management sciences	First year
6	24	Male	Management sciences	Third year
7	27	Female	Health sciences	Fourth year
8	25	Female	Law	Third year
9	21	Male	Law	First year
10	18	Male	Health sciences	First year
11	19	Male	Law	First year
12	20	Male	Management sciences	Second year
13	22	Female	Natural sciences and mathematics	Second year
14	19	Male	Health sciences	First year
15	20	Male	Law	First year
16	24	Male	Health sciences	Third year
17	25	Male	Natural sciences and mathematics	Third year
18	23	Male	Management sciences	Second year
19	23	Male	Management sciences	Second year
20	25	Male	Natural sciences and mathematics	Fourth year
21	20	Male	Social sciences	First year
22	21	Female	Natural sciences and mathematics	First year
23	22	Female	Social sciences	Fourth year
24	22	Female	Social sciences	Fourth year

25	23	Male	Natural sciences and mathematics	Fourth year
26	21	Male	Natural science and mathematics	First year
27	23	Male	Management sciences	Third year
28	24	Male	Social sciences	Fourth year
29	26	Male	Social sciences	Fourth year
30	19	Male	Social sciences	First year

Additionally notable is that none of the participants were self-funded or privately funded for their academic programs. All 30 participants either explicitly stated or suggested that they were beneficiaries of the National Student Financial Aid Scheme (NSFAS), which they relied on to cover fees for tuition, accommodation, study materials, and meals. Except for two senior students who noted that they supplemented their NSFAS stipend with money earned from tutoring, the other participants indicated no additional sources of income.

#### 3.3 Ethical Considerations

This study received ethical approval from the University of Venda's Higher Degree Ethics Committee. In line with the university's ethical standard, the study adhered to ethical principles. This included maintaining South African mandatory Covid-19 health regulations, which helps to prevent any potential harm to participants. It also adhered to the ethical principle of respecting the confidentiality of the participants. This means that all personal information that has the potential of making known the participants' identities has been removed from both this write-up and from the data repository.

Furthermore, the principle of ensuring informed consent and voluntary participation in the study was continuously maintained throughout the study. A conscious effort was made to provide comprehensive information regarding the study prior to the interviews. The participants were also made to understand that they were free to withdraw from the research at any point throughout the research process. The interviews were also not recorded without their permission.

#### 3.4 Data Analysis

For the data analysis, the study relied mostly on Braun and Clarke's (2022) six-step thematic approach. This included: Step 1: familiarization with the data; Step 2: generation of initial codes; Step 3: searching for themes; Step 4: reviewing of themes; Step 5: definition of themes; and Step 6: writing-up.

Familiarization with the data started with a detailed transcribing of the interviews and observational data from audio to written format by the first researcher. With the transcribing of the data done, it was easier for the other researchers to read and re-read the data. The generation of initial codes and searching of themes followed. Here, statements which stood out for the research were identified and categorized in a simple Microsoft document, with use of colors. Major issues were also recognized and organized as codes, separately by three of the researchers. The generated codes by the three researchers were constantly compared to

ascertain objectivity and dependability of the data. As these codes synchronized, it became easier to categorize them in terms of how they related to the research questions.

Furthermore, we proceeded with the fourth step, reviewing of themes. This involved categorizing all significant responses and all the recurring arguments from the participants' statements in a way that relates to the research questions. These responses were further arranged and reviewed as the main themes in relation to the research questions, as the fifth step. Finally, the data were written up (sixth step) in line with the developed themes.

## 4. Findings

The data analysis revealed three major themes. These are: 1) participation difficulties in using e-learning platforms; 2) complex home-study environments; and 3) lack of consultation and academic interactions. These themes represent the most common challenges and experiences encountered by the participants in the transition from face-to-face learning to the use of E-LPs at the University of Venda.

## 4.1 Theme 1: Participation Difficulties in Using E-Learning Platforms

Analysis of the participants' narratives indicates difficulties in accessing the E-LPs as one of the biggest challenges encountered by students as they navigated the E-LPs during the pandemic. Three main elements (subthemes) enabled this difficulty. The first was *general lack of skills and technical know-how needed to navigate E-LPs*. Before Covid-19, the University of Venda, like most rural-based institutions in South Africa, depended on the traditional face-to-face method for administering lectures in almost all their study modules. The only official online platform available was Blackboard. Even so, the students had very little knowledge of how to use such a platform. In fact, only 6 out of the 30 participants had used the E-LP before the pandemic. Even though the university had, before the pandemic, introduced this platform for administration of modules, most of the lecturers and the students, according to most of the participants, did not use them in any of their courses. As a result, the students struggled to use Blackboard or other E-LPs when it was made mandatory during the pandemic. Below are some significant narratives that show participants' difficulties with E-LPs:

"Of all the challenges I have encountered, the one that was so difficult for me to overcome was familiarizing myself with Microsoft Teams and Moodle. I also struggled to learn how to log in and use the platforms. Using these things is not that simple." (Participant 1)

"One thing I found frustrating was knowing how to log in to these apps to submit or upload assignments. In Turnitin, for example, I did not know which option to select after the document had been checked. Usually, I would download an assignment that has been highlighted in colors indicating plagiarism from the cover page and even things that I know that I typed them myself. As a result, I would score low marks on most assignments because most lecturers had a penalty for students whose similarity index is above a certain percentage. Not being familiar with some of these apps that we were asked to use for the E-LP disadvantaged me." (Participant 21)

Lecturers themselves were also not spared from these challenges. They also encountered difficulties in either how to use the platforms or to assist students when they had difficulties. Naturally, this lack of assistance complicated the problem for the students. This is how one of the participants captured the point:

"I felt like most lecturers were also caught off guard by the sudden implementation of e-learning. Most of them seemed to be blank when it came to the challenges we face. They not only could not help us; they themselves also struggled, and this made our cases worse. It was very frustrating .... For example, there were cases where the lecturers were not audible enough, and they didn't know what to do to save the situation. It was a nightmare." (Participant 8)

The second significant element that made access to online platforms difficult for the participants was *general lack of funds*. This seemed to be the trend for all the students, regardless of gender or seniority in studies. In some cases, participants indicated that they had good computer skills and the technical know-how to log in to the online platforms. However, they were limited by financial constraints to purchase either internet data or the appropriate electronic device to participate in online lectures. Thus, using E-LPs not only entailed logging on to such platforms but also having access to internet data and appropriate electronic devices that support such applications. In situations where they lacked these, it was not possible to use E-LPs for academic engagements.

The University of Venda did recognize the urgency of internet data for facilitating students' ability to participate in online lectures. Hence, shortly after the commencement of the E-LP approach, the university made efforts to address the challenge by providing 10 GB internet data to all the registered students, as well as lecturers and authorized module facilitators for the 2020 academic year. By 2021, this allowance was increased to 20 GB. Unfortunately, the provision and administration of the data were not reliable or consistent. In most cases, the data either arrived late or often ran out within the first few weeks of the month. Unable to purchase data from private funds, students subsequently remained unable to log on to the learning platforms for the rest of the month. This is how two of the participants explained this scenario:

"I ran out of the data that was allocated to me by the university before month end. 10 gig is not sufficient for E-LP on a monthly basis. I ended up buying promotional starter packs just to use for data so that I did not have to miss academic-related activities due to lack of data. Most of the time, I still fail to win." (Participant 2)

"Most of us students come from families that could not afford to support them financially. Most of us are NSFAS dependents: How, then, does it make sense that we must buy data to attend online sessions? Free data that was given to students was not instantly distributed to students; it took more than 5 months before we were given the 10 gigs. And when we received it, it was not enough for us to attend all the classes." (Participant 29) Problematic internet connectivity was the last element identified in the issue of data hindering access to online platforms. This is particularly true for students who live in remote areas – who constitute the majority of the student population. Remote locations are characterized by poor internet connectivity due to insufficient network coverage from the main internet providers in South Africa. As a result, students struggled to access the online platforms. In instances where students managed to initiate access to such platforms and could log in to online lectures, an unstable connection resulted in them constantly being logged out from the platforms mid-way into the lectures or being unable to submit their assignments within the E-LPs.

"Sometimes when you manage to log in, you still encounter some troubles. When you miss a session online and want to listen to it later, you find it inaccessible or not available because of internet connectivity. This lack of access often opens me up to frustrations and misunderstanding of lecture information." (Participant 10)

"In our case, it seems that blended learning is entirely dependent on network issues and electricity to occur. One must have a stable network connection, compatible smartphone, and data to be able to attend classes .... Learning is compromised when you don't have these things. This is exactly the situation where I found myself as I lived with my parents in my village. I had no internet connectivity most of the time." (Participant 4)

"The major problem with getting access to the E-LPs is poor network coverage. From where I come from at Manini, the network is very bad. Because of this, I missed lessons and could not do what I wanted to do online. It was a huge problem for me." (Participant 18)

In the context where the lockdown restrictions had already limited students' movements and ability to find other ways of solving their problems, these inadequacies served as an additional stressor, hence a major source of frustration for the students. In many instances, these frustrations resulted in students turning to negative social acts such as alcoholism and being delinquent with their academic activities.

"I never imagined that my first year experience would be this stressful. I was a victim of circumstances, like many of my fellow rural-based students. Because of all these troubles, I failed two modules in the academic year 2020." (Participant 1)

"I was not coping at all. It got to a point when I started drinking a lot in order for me not to stress about my schoolwork. I was at home, and I did not have a good working phone, and although my phone was a smartphone, it was old. It kept on freezing and sometimes switched off. This frustrated me whenever I had to attend an online session, present, write a test, or submit assignments." (Participant 8)

## 4.2 Theme 2: Complex Home-Study Environments

In addition to the difficulties experienced in accessing the online platforms, another significant factor that triggered frustrations was attempting to combine the home and study environments. In most of the tertiary institutions, senior students lived alone in hostels on campuses before the pandemic. Within such accommodation arrangements, they were independent. They could plan their daily activities – wake up when they wanted, do their laundry, eat what they wanted, engage in any academic and social activities they desired (for example, going to the gym), and chit-chat with their friends and classmates. With the pandemic and their mandatory moving back to their parents' houses, this flexibility was completely lost. Instead, what became available (especially for students from impoverished backgrounds) during this period were seemingly hostile academic environments. These were characterized by poor infrastructure, overcrowding, and severe spatial constraints, with limited privacy and lack of opportunities for studying and relaxation.

In some cases, the students, particularly female students, were also expected to perform domestic chores, for example being mini-parents to their younger siblings or caregivers to elderly family members. These situations created a general "sense of loss of independence". It triggered, as Participant 24 described it, "feelings of resentment and frustration." These feelings discourage participation in online academic activities. This is how other female participants described the situation in their own words:

"It was disturbing to study while at home because we are overcrowded. I live in the same house with my other siblings, who have kids. Everybody expects me to help with these kids sometimes. The kids also always made it impossible for me to focus on my studies. They used to make noise and I couldn't concentrate: the laughing, the screaming and crying. I was always upset and discouraged from studying." (Participant 7)

"There are many people at my place. It is a family of 12 people. ... Usually, there were noises from my siblings. This means there are many distractions. There are also noises coming from the television, the radio, the telephone etc. These things were not conducive for my learning. On top of these, these people are also always wanting me to help with things at home; to cook, do dishes, and clean the house. I never had time for myself. These things caused me a lot of stress and frustration. At some point, I told my parents about it, and we concluded that I had to move to Polokwane to visit my aunt." (Participant 8)

"I hated being at home, as it reminded me of my duties at home. ... I had to do a lot of domestic activities, which made it difficult to participate in my own academic activities." (Participant 22)

Operating in a context where they had already attained some level of independence and coming back to their parents' houses (albeit temporarily) naturally generated some sense of loss, irritation, and disappointment among participants. These psychological challenges impacted students' disposition, attitudes, and ability to learn during the pandemic.

#### 4.3 Theme 3: Lack of Consultation and Academic Interactions

The final theme, *lack of consultations and academic interactions*, captures how participants' inability to consult with either their lecturers or contemporaries during the pandemic served as a major source of frustration. Discussing their experiences, the participants explained how they encountered difficulties in trying to get hold of their lecturers for academic consultations. During this time, consultations were restricted to only emails and online platforms via chat communication, which offered limited opportunities for immediate and comprehensive dialogue on issues. Feedback on students' queries on assignments, tests, grades, or lecture-content points were in most cases never responded to or not quickly enough. Students often waited long periods, beyond the due and usefulness of the queries, before their emails were responded to. Below are comments from some of the participants:

"Some lecturers don't respond to our consultation emails and those who do take time probably because of the traffic of emails from other students .... Attempts to call the lecturers on cell phones were never tolerated. The email thing for consultations never really worked for me. It instead contributed to my frustrations." (Participant 7)

"It was hard to communicate with them because the email methods seemed to have a lot of problems. I was stressed and angry at some of the lecturers for not taking their students seriously during the time when we needed them most. It was like they were fearing for their lives so much that they abandoned the students to roast." (Participant 10)

"Some lecturers never even bothered to return the emails. Personally, I sent many emails with no responses. Then I decided to go to their offices, only to be told to go back and use emails. The lecturers really frustrated us during that period." (Participant 16)

Another salient point raised by the participants was that, sometimes, even when some responses came from the lecturers, they were either too late or did not address the issues raised by the students in the queries:

"It is stressful to wait for a response only to be even more confused. I was always stressed about my marks and how to write my assignments. My emails were never responded to on time by the lecturers. When they responded, they were either too late, because I had already submitted the assignments with the little information I could gather." (Participant 19)

"In most cases, the responses to my emails were either late or never addressed my questions. These left me more confused. ... I remember one time, during the pandemic, I sent an email to my lecturer asking how to submit an assignment via Moodle. The response never came back on time. If it was not for my friend who helped me, I would not have submitted that assignment on time, because my lecturer replied three days after I sent the email, and I was supposed to submit two days after the email." (Participant 10)

With the lack of access to the lecturers resulting in poor performance in their modules, students felt ignored, victimized, and frustrated. In their estimation, participants felt that students in rural-based tertiary institutions in South Africa are better off with the traditional face-to-face learning than with the online platforms. At least with traditional face-to-face methods, scholarship is stimulated. Students can interact with both their lecturers and fellow students. Here, they can also observe body language, which helps them make intelligible interpretations of lecture contents and academic discussions. Below are two significant arguments from the participants in this regard:

"Face-to-face education was more efficient and less problematic. The engagement of a face-to-face method should be encouraged for students like me who are not good in English. In a face-to-face lecture, we will get the necessary exposure that takes away some of the language problems .... Unfortunately, this was not available in an online terrain. We therefore feel left out by the system." (Participant 15)

"I had a lecturer who would make me even distressed on the online platform. In most cases, she was not audible, and it felt like a waste of time and data attending her classes. The lady was bad; even before online lessons, most students found it hard to understand her. She also uses bombastic words to teach. We were going through hell. There was no room in the online lecture to engage completely with her without being misunderstood." (Participant 25)

These comments on the significant impact of physical consultations and interactions with either lecturers or academic peers on students' cognitive abilities clearly align with previous research (Mtshweni, 2022). In discussing the pivotal role of face-to-face lectures and peer interactions, previous studies have often argued that the former (which involved physical contact) is more efficient and less problematic than virtual learning. In physical, face-to-face situations, people can observe others' body language and facial expressions, hear the tone of their voice, and feel their reactions to the academic conversations. All these assist in increasing and improving the impact of the interaction; such effects are innate. When these opportunities are not available in teaching and learning, significant means of cognition are lost.

#### 5. Discussion

This study found that undergraduate students from the University of Venda had considerable difficulty during the Covid-19 pandemic, which required an abrupt shift from traditional face-to-face teaching and learning to the reliance on E-LPs. This is mostly because students operated in the context of: a) practical unpreparedness and lack of skills needed for the transition from traditional face-to-face to online learning; b) home environments in which domestic obligations and circumstances interfere with time allocated to studies; and c) difficulties to successfully participate in the learning experience, as interactions with lecturers were limited, inefficient, and inadequate.

Participants' responses draw attention to the idea that a combination of factors which could be out of students' control shapes teaching and learning experiences

of students at the university. For instance, students could decide whether they wanted to attend lectures. However, the ability to successfully follow this decision through was dependent on the availability of mobile data, reliable internet connection, and a quiet space from which to work within the home environment. Such challenges, albeit not being within the control of the students, determine whether the students would be able to participate in academic activities.

Moreover, students also had to move back to their parents' houses during the pandemic, which meant additional responsibility for diverse domestic activities, distractions from siblings and parents, a hostile study environment, and, often, a total loss of independence. Students therefore became more frustrated and discouraged from participating in online academic activities, regardless of their efforts to be proactive academically.

These findings re-affirm Paulette and Cartwright's (2022) socio-psychological argument that moving back to parents' houses brought feelings of profound loss of freedom, anger, and frustration, especially after having enjoyed some sort of independence at student residences. Moving back to parents' houses in this situation (albeit temporarily) meant a significant loss of rite of passage and liberation which the university residences provided. The loss of this freedom and autonomy meant a hostile learning environment within which learning was more difficult. The natural consequences of this are frustration and disappointment (Mensch & Ali, 2007). Thus, dissatisfaction and frustration with the off-campus environment are not applicable only to students from historically Whites-only universities but also to students from rural-based institutions.

Perhaps the impact of how lack of autonomy and engagement with domestic activities can affect learning is best illustrated when attention is focused on female participants' responses. Female participants clearly expressed how domestic activities constitute impediments to participation in E-LPs. In fact, from the participants who reported domestic obligations as a major hindrance to their studies, most were female students (participants 7, 8, 13, 22, 23, and 24). It seems that while male students are afforded a reasonable amount of time for study, leisure, or other activities, female students within the traditional African household structures are hardly permitted time for such. Similar to Maisela and Ross' (2018) study, young girls in most homes in South African rural communities are often expected to assume roles of co-mothers, domestic assistants, and caregivers. This differentiated assignment of roles in South African households and seeming gender inequality have consequences and significant implications on students' teaching and learning experience (Wahyuningsih & Afandi, 2023). Admittedly, gender roles and expectations remain most visible in domestic and home structures. During the pandemic, these factors easily became a major impediment to female students' effective use of E-LPs, thereby exacerbating barriers to teaching and learning.

Furthermore, students' frustration with teaching and learning through E-LPs was further exacerbated by the lack of physical consultation and academic interactions with lecturers and other students during the pandemic. Due to the Covid-19

restrictions, students could not physically engage or interact with either their lecturers or academic peers. They also could not substitute these academic interactions with online engagements due to lack of financial resources to purchase the needed internet data (to join or stay on the online lecture platforms). Even those who had the resources to engage in online classes were also hindered by either the lecturer's slow response or their technological incompetence. This new reality generated a lot of frustrations and resulted in lack of concentration and poor academic performance by students.

TDT places emphasis on student-to-student as well as student-to-lecturer dialogue as enabling successful teaching and learning (Ritonga et al., 2022). Physical interaction not only provides opportunities for academic dialogue and valuable cognitive information about study materials; it also encourages instant peer learning. This does not deny the veracity of previous literature (Topping, 2023), which suggests that in some countries, after the pandemic, online peer learning has been more valuable and successful than offline learning. Admittedly, such analysis is true; however, the validity of the success and value of using online learning here is contingent on context - the culture and reliability of technologies used (Topping, 2023). In the context of this study, unreliable network connections coupled with low skill in use of technologies influenced preference of face-to-face interaction over E-LPs. The experience of using E-LPs at the University of Venda is associated with great difficulty because of the unique challenges (general lack of skills and technical know-how, lack of funds, and problematic internet connectivity). Hence, students become comparatively discouraged and find it difficult to use E-LPs for their academic engagements. As students struggled to use the E-LPs due to lack of access to stable network connections, for instance, they became discouraged as well as developed negative emotions towards online learning.

These findings have several important broader implications. First, they deepen the understanding of the relationship between learning and availability of resources. As the study has shown, lack of specific resources, such as infrastructure, finances, and technical information technology (IT) skills; conducive accommodation arrangements; and physical interactions with lecturers and peers, makes learning difficult and contributes to students' frustrations in socio-economically disadvantaged situations. Learning does not take place in a vacuum; rather, it occurs amid adequacy and availability of specific resources. It is, in fact, resources that provide the psychological and communications space upon which learners process information. Inputs are processed amid the availability of resources, thereby resulting in cognition. Cognition and success are affected by both contextual external realities and internal mental construction from the students and lecturers' beliefs and attitudes (Mann & MacLeod, 2015). During the pandemic, frustrations evolved because the psychological and communications spaces under which inputs are processed were disrupted or unavailable.

Second, the findings expand the old and recurring discussion in South African literature (Kurtz et al., 2022; Mtshweni, 2022; Polus, 2020) regarding inequality

that results from unequal funding opportunities at the South African universities. While the transition from traditional teaching methods to e-learning during Covid-19 seems to have gone smoothly in the traditional Whites-only universities due to the availability of improved and adequate infrastructures and basic ICT skills (Mtshweni, 2022), the contrary is the case for traditionally Black institutions (rural-based universities). This means that students from rural-based institutions, who are already statistically likely to not complete their degrees on time (Kurtz et al., 2022) or to drop out of their studies due to lack of financial aid, lower academic confidence, and under-preparedness and poor feedback from their lecturers (Tamrat, 2020), are further pushed against the wall into disabling circumstances. On the other hand, their peers in well-resourced circumstances have ample sociopsychological and financial support safety nets (Polus, 2020; South Africa. DHET, n.d.). There still exists significant and worrying unfair disparity in the transition to e-learning in the two main categories of tertiary institution in South Africa: historically Whites-only institutions and historically Black institutions.

The recognition of these unfair discrepancies in the way transition from traditional to e-learning has been felt by students at the two categories of universities in South Africa adds to the growing body of research (Polus 2020; South Africa. DHET, n.d.) on how social crises deepens inequality and social disparities between formerly traditionally Whites-only and formerly traditionally Black (rural-based) universities in South Africa. Existing educational challenges thus do not necessarily disappear or become minimized in times of social crisis, as Mrutu et al. (2023) found in their study. Rather, they become exacerbated. While the Covid-19 pandemic may have levelled the socio-economic playing field for people in many areas of South Africa (Amaechi et al., 2021), in undergraduate studies, the pandemic exacerbated existing academic challenges for students in rural-based institutions, in real time.

Finally, the aspect of students' complex home environments during the pandemic provides additional material for the academic debate on students' work-study pairing abilities during their tertiary-study period and generally on their academic experience. Combining academic activities with work or domestic activities always comes with additional costs. The costs emerge when work-related demands drain students' resources and constrains their ability to fulfil school responsibilities (Ayadurai, 2018). The study showed how costs were concretized, as limited privacy, lack of time, and limited opportunities for relaxation discouraged academic engagements and made it difficult for students to participate in online learning. In doing so, the study also provided a nuanced understanding of how "work" interferes with students' abilities to combine academic activities with other non-related activities (domestic and co-parenting). As the combination of the activities remains something that will likely continue for many students beyond the Covid-19 pandemic, due to the rising cost of living, less funds allocated for student support, and multiple major funders pulling out of the institutions (South Africa. DHET, n.d.), the experience thereof will likely differ along gender lines, with female students facing the greatest challenge.

#### 6. Conclusion

This study has drawn on narratives from 30 undergraduate students to identify their experiences with the technology-reliant E-LP teaching and learning model at the University of Venda in South Africa during the Covid-19 pandemic. The results show that students found the transition from face-to-face learning to E-LPs to be riddled with challenges, namely: a) difficulty in accessing online E-LPs, b) complex home–study environments; and c) lack of consultation and academic interactions with their lecturers and peers. These challenges compromised effective teaching and learning, as well as the overall academic experience of students.

The study significantly revealed the existing disparity and gender inequality in gender roles in South African households. Girls in South African rural households are hardly afforded the same amount of time for study, leisure, or other activities as their male counterparts, regardless of age or academic level. Additionally, lack of ICT infrastructure and skills for students in rural areas continues to be a pressing matter if rural-based institutions and students are to not to be left behind in the technology-heavy post-pandemic future.

#### 7. Limitations

One significant limitation of this research is the inability to conduct an extensive in-depth comparison of students' experiences across different rural institutions and across gender lines. Even though such extensive and elaborate comparison could potentially provide more insights into the experiences of students in other contexts, it falls outside the scope and available resources of the current study.

Second, by relying solely on a qualitative approach and focusing only on a small number of participants (N = 30), the generalization of the results for a wider population is impossible. However, findings generated from the research can only be generalized theoretically.

#### 8. Recommendations

Based on the findings in this study, it is recommended that future studies engage in comparisons of students' experiences across different institutions and across gender lines. Such studies could provide more context and a gender-based understanding of students' experiences at global, national, and local levels. Some disparities across socio-economic classes and their manifestations in higher education have been documented and centered in public discourse from the #FeesMustFall³-based literature in South Africa. Nonetheless, more reflections on the ways the pandemic or even other social crises are experienced by different genders at the tertiary level, from the sociology of education perspective, could further supplement existing knowledge.

<sup>3</sup> **#FeesMustFall** is a student-led protest movement that began in South Africa in mid-October 2015, with the aim to stop increases in student fees, as well as to increase government funding of universities. The campaign coincided with calls for decolonisation of universities across the country, as well as for action towards creating institutions that more closely reflect an increasingly demographically diverse student population

(Mpatlanyane, 2018; Nyamnjoh, 2016).

Gender and sex do play significant roles in how social experiences are shaped – from differences in expectations and responsibilities in the household and family, to stark differences in what is required for livelihood and security. These understandings should be brought forward when universities design measures and policies to deal with social realities that affect the academic life of students.

Second, future studies should adopt a quantitative research design towards the study of undergraduate students' experiences of E-LPs across South Africa, broadly, and rural-based institutions, specifically. As more studies on this subject accrue, more statistically based studies are necessary to complement the narratives coming out of qualitative work. The combination of the two will serve as a powerful tool for advocating for state intervention and lobbying efforts towards a more equitable education system.

#### 9. References

- Abdullah, J., Mohd-Isa, W. N., & Samsudin, M. A. (2019). Virtual reality to improve group work skill and self-directed learning in problem-based learning narratives. *Virtual Reality*, 23(4), 461–471. https://doi.org/10.1007/s10055-019-00381-1
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the e-learning system usage during Covid-19 pandemic. *Education and Information Technologies*, 25(6), 5261–5280. https://doi.org/10.1007/s10639-020-10219-y
- Amaechi, K., Thobejane, T., & Raymond, R. (2021). Feminist reflections on the impact of the South African national Covid-19 lockdown on the upsurge of gender-based violence in Mahwelereng township of Limpopo province, South Africa. Gender and Behaviour 19(1), 17186–17203. https://www.ajol.info/index.php/gab/article/view/210060
- Aucejo, E. M., French, J., Araya, M. P. U., & Zafar, B. (2020). The impact of Covid-19 on student experiences and expectations: Evidence from a survey. *Journal of Public Economics*, 191, 10427. https://doi.org/10.1016/j.jpubeco. 104271
- Ayadurai, V. K. (2018). Work-life balance, work-study interface, gender, stress, and satisfaction of online students [Doctoral thesis]. Walden Dissertations and Doctoral Studies, 5445, Walden University, Minneapolis, USA. https://doi.org/10.9756/iajobhrm/v5i1/1810009
- Bless, C., Higson-Smith, C., & Sithole, S. L. (2013). *Fundamentals of social research methods: An African perspective* (5th ed). Juta and Company Ltd.
- Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, *9*(1), 3–26. https://doi.org/10.1037/qup0000196
- Dampson, D. G., Addai-Mununkum, R., Apau, S. K., & Bentil, J. (2020). Covid-19 and online learning: A SWOT analysis of users' perspectives on learning management system of University of Education, Winneba, Ghana. *International Journal of Learning, Teaching and Educational Research*, 19(9), 382–401. https://doi.org/10.26803/ijlter.19.9.20
- Demuyakor, J. (2020). Coronavirus (Covid-19) and online learning in higher institutions of education: A survey of the perceptions of Ghanaian international students in China. *Online Journal of Communication and Media Technologies, 10*(3), e202018. https://www.ojcmt.net/article/coronavirus-covid-19-and-online-learning-in-higher-institutions-of-education-a-survey-of-the-8286
- Dube, B. (2020). Rural online learning in the context of Covid 19 in South Africa: Evoking an inclusive education approach. *REMIE: Multidisciplinary Journal of Educational Research*, 10(2), 135–157. http://dx.doi.org/10.447/remie.2020.5607

- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial Covid-19 crisis. *Canadian Journal of Behavioural Science/Revue Canadianne des Sciences du Comportment*, 52(3), 177–187. https://doi.org/10.1037/cbs0000215
- Gibbs, T. (2020). The Covid-19 pandemic: Provoking thought and encouraging change. *Medical Teacher*, 42(7), 738–740. https://doi.org/10.1080/0142159X.2020.1775967
- Hiver, P., Al-Hoorie, A. H., & Larsen-Freeman, D. (2022). Toward a transdisciplinary integration of research purposes and methods for complex dynamic systems theory: Beyond the quantitative–qualitative divide. *International Review of Applied Linguistics in Language Teaching*, 60(1), 7–22. https://doi.org/10.1515/iral-2021-0022
- Kurtz, B., Roets, L., & Biraimah, K. L. (2022). A comparison of racial and ethnic inequalities: Resegregation in US schools and post-apartheid education in South Africa. In A. W. Wiseman (Ed.), Annual review of comparative and international education 2021 (International perspectives on education and society) (Vol. 42A; pp. 249–269). Emerald Publishing Limited. https://doi.org/10.1108/s1479-36792022000042a018
- Maisela, T., & Ross, E. (2018). The experiences of motherhood among Black undergraduate students at a South African university: Reconciling competing roles. *South African Review of Sociology*, 49(2), 41–60. https://doi.org/10.1080/21528586.2018.1507835
- Mann, K., & MacLeod, A. (2015). Constructivism: Learning theories and approaches to research. In J. C. Steven, & J. Durning (Eds.), *Researching medical education* (pp. 49–66). https://doi.org/10.1002/9781118838983.ch6
- Marinoni, G., & van Land, H. (2020). The impact of Covid-19 on global higher education. *International Higher Education*, 1(102), 7–9. https://ejournals.bc.edu/index.php/ihe/article/view/14593
- Mensch, S., & Ali, A. (2007). Transitional distance theory and communication in online courses: A case study. *Issues in Information Systems*, 8(2), 224–228. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=a4466a399 9f99053f5a4c4e0b9180522055dd023
- Mhlanga, D., & Moloi, T. (2020). Covid-19 and the digital transformation of education: What are we learning on 4IR in South Africa? *Education Sciences*, 10(7), 180. https://doi.org/10.3390/educsci10070180
- Mpatlanyane, V. L. (2018). *New student activism after apartheid: The case of open Stellenbosch* [Master's thesis]. University of Stellenbosch. https://scholar.sun.ac.za/server/api/core/bitstreams/517cce14-fe8f-47aa-ac15-62c5951d60d6/content
- Mrutu, N., Kajoro, P., & Nkota, H. P. (2023). Leadership, teaching and learning in times of crisis in southern Tanzania. *International Journal of Learning, Teaching and Educational Research*, 22(3), 544–558. https://doi.org/10.26803/ijlter.22.3.32
- Mtshweni, B. V. (2022). Covid-19: Exposing unmatched historical disparities in the South African institutions of higher learning. *South African Journal of Higher Education*, 36(1), 234–250. https://journals.co.za/doi/full/10.20853/36-1-4507
- Nyamnjoh, F. B. (2016). #RhodesMustFall: Nibbling at resilient colonialism in South Africa. Langaa RPCIG. https://doi.org/10.2307/j.ctvmd84n8
- Owusu-Fordjour, C., Koomson, C. K., & Hanson, D. (2020). The impact of Covid-19 on learning: The perspective of the Ghanaian student. *European Journal of Education Studies*, 7(3), 88–100. https://doi.org/10.1093/icon/moac065
- Paulette N., & Cartwright, D. (2022). Where to from here? Contemplating the impact of Covid-19 on South African students and student counselling services in higher education. *Journal of College Student Psychotherapy*, 36(4), 355–369. https://doi.org/10.1080/87568225.2020.1842279

- Polus, A. (2020). Political aspects of reproduction of inequalities in the Republic of South Africa. *Historia i Polityka*, 39(32), 9–26. https://doi.org/10.12775/HiP.2020.011
- Ritonga, M., Lahmi, A., Saputra, R., & Nofrizaldi, N. (2022). Online learning during the Covid-19 pandemic period: Studies on the social presence and affective and cognitive engagement of students. *Pegem Journal of Education and Instruction*, 12(1), 479–486. https://doi.org/10.9756/int-jecse/v14i1.221058
- Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of Covid-19 on the mental health in the general population. *QJM: An International Journal of Medicine, 113*(8), 531–537. https://doi.org/10.1093/qjmed/hcaa201
- South Africa. Department of Higher Education and Training (DHET). (n.d.). Social impact of the COVID-19 pandemic on youth in the Post School Education and Training (PSET) Sector in South Africa [Human Research Science Council survey report]. https://www.dhet.gov.za/SiteAssets/Media%20Advisory%20and%20Statemen ts%202021/PSET%20Youth%20survey%20presentation\_April%202021.pdf
- Tamrat, W. (2020). Enduring the impacts of Covid-19: Experiences of the private higher education sector in Ethiopia. *Studies in Higher Education*, 46(1), 59–74. https://doi.org/10.1080/03075079.2020.1859690
- Topping, K. J. (2023). Advantages and disadvantages of online and face-to-face peer learning in higher education: A review. *Education Sciences*, 13(4), 326. http://dx.doi.org/10.3390/educsci13040326
- Wahyuningsih, S., & Afandi, M. (2023). Using blended learning in the EFL classroom during the Covid-19 pandemic in Indonesia: A narrative inquiry. *International Journal of Learning, Teaching and Educational Research*, 22(3), 209–224. https://doi.org/10.26803/ijlter.22.3.13