Chapter 8

Assessments during the COVID-19 Pandemic: The Experiences of Students in Higher Education Institutions within the South African Context

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Abstract

Assessments provide the means by which students' learning is measured, and feedback is given. Anecdotal evidence suggests that, during the Covid-19 pandemic, there was an urgency for a shift to emergency remote teaching and learning in higher education and that resulted in a change of students' assessment criteria. The purpose of this study was to determine students' assessment experiences during the pandemic. The study utilised a mixed-methods approach using a concurrent data collection strategy to conveniently sample 108 undergraduate students from a higher education institution in the Eastern Cape Province of South Africa. Data analysed from quantitative and qualitative sections of the questionnaire were triangulated. Mixed results were recorded, indicating that students were optimistic and motivated by their assessment experiences during the Covid-19 pandemic. On the other hand, other assessment-related challenges, such as technical and connectivity issues, stressors and late feedback were noted. The chapter suggests that student-related factors, institu-

tional factors, and governmental factors related to the harmonisation of the on-line learning space must be revisited to produce more credible and purposeful student assessment experiences that can withstand risks to the higher education system. The study therefore recommends that lecturers and online assessment designers should be mindful and adopt a holistic approach to fit the purpose in which the assessment is designed, integrated, and implemented.

Introduction

Assessment is a critical part of the teaching and learning process at all levels of education. Through assessment, lecturers can classify and grade their students, give feedback, and structure their teaching accordingly (Tosuncuoglu 2018). Concerning the importance of assessment in the academic life of students, Boud (1995:35), states that "students can with difficulty escape the effects of poor teaching, they cannot (by definition, if they want to graduate) escape the effects of poor assessments". This quote reflects the current state of affairs concerning assessments in higher education institutions.

The Covid-19 pandemic prompted an abrupt shift from face-to-face to remote instruction in higher educational institutions. This upended normal assessments in almost all higher education institutions around the world, because the lockdowns or social distancing measures were still continuing (Guangul, Suhail & Khalit 2020; Hew, Jia & Gonda 2020; Sharadgah & Sa'di 2020). Before the pandemic, most of the modalities for teaching, learning and assessment were strongly dependent on contact or face to face mode of teaching and learning (Schindler, Burkholder & Morad 2017). However, due to increased risks of infections, higher education institutions were forced to consider remote learning and assessment as an alternative for delivering academic objectives (Mncube, Mutongoza & Olawale 2021).

Thus, it is commonly accepted in the contemporary context that online assessment is no longer a choice, but a necessity for measuring knowledge and ensuring that learning outcomes are reached. As Vonderwell, Liang and Alderman (2007) note, assessment in online learning contexts is distinct from assessment in face-to-face situations, owing in part to the asynchronous nature

of online participant interaction. As a result, lecturers' online pedagogy must be rethought to develop successful evaluation methodologies that enable meaningful (higher-order or deep) learning and its assessment.

A review of the pertinent literature demonstrates that online assessments are a significant technical innovation that should be incorporated into the educational system to supplement the current evaluation method (Alruwais, Wills & Wald 2018). These assessments reflect the nature of online learning and empower students to take greater ownership of their education (Liang & Creasy 2004). Online assessment enables learners to demonstrate their critical thinking and problem-solving ability, which are two of the primary benefits of transitioning from traditional teaching to online learning, in which the teacher serves primarily as a facilitator (Reimers *et al.* 2020).

Despite the numerous benefits of online evaluation, various issues and constraints prevent widespread adoption (Mahyoob 2020). One of the primary problems that surfaced was some students' lack of confidence in assessment as a valid and secure technique of evaluating their competencies (Whitelock & Brasher 2006).

At remote universities that primarily serve rural populations, lecturers had little time to examine online assessment solutions because of theCovid-19 stringency (Adedoyin & Soykan 2020). This was because such lecturers had rarely taught remotely in the past, making both online instruction and assessment experimental (Zalat, Hamed & Bolbol 2021). Additionally, the majority of rural students are unfamiliar with online learning and evaluation as Suryaman *et al.* (2020) remark, the Covid-19 pandemic has therefore exposed shortcomings in remote learning and assessment, particularly in the developing world, where students reside in rural areas without access to basic educational amenities. The current crisis has indeed highlighted historical, geographical, and economic inequities that many students confront, such as access to electricity and broadband internet, as well as the expansion of learning management systems beyond the boundaries of higher education institutions.

Although some urban institutions used technology prior to the Covid-19 outbreak, the majority of rural institutions are now required to adopt technology in order to continue teaching, learning and assessment, resulting in a substantial growth in online teaching and learning (Mishra, Gupta & Shree 2020). As a result, lecturers and students are required to increase their knowledge and proficiency in the use of online resources. However, because students are required to demonstrate their gain from online teaching by pro-

gressing to the next level, it was deemed necessary to gather their perspectives on this rapid transition from face-to-face to online learning and assessment.

However, prior research has raised concerns about the quality of instruction in online courses (Ives 2021), as well as issues of equality and accessibility for online teaching and learning and online assessment. At the same time, relevant research on student experiences with online assessments is scarce and frequently omits data on student experiences with online assessments during the Covid-19 epidemic, including how assessment processes influenced students' experiences in online learning throughout the pandemic. Additionally, there is a dearth of research on how technology support services affect students' assessments during a pandemic. Moreover, as the total usage of online education continues to grow, maybe aided by experiences with the Covid-19 epidemic, the consequences for research on these topics are broad and long-term by nature.

This chapter therefore fills gaps in the research by examining student assessment experiences, assessment procedures, and technology that facilitates online learning in higher education within the context of a rural institution. As Ojo and Lorenzini (2021) assert, such awareness enables global higher education to adapt and develop in an unpredictable future.

The chapter aims to address the gap in this empirical study by considering the following research questions:

- What are students' experiences with online assessment during the Covid-19 pandemic?
- How have assessment procedures shaped students' experiences in online learning during the pandemic?
- How did technological support services influence student assessments during the pandemic?

Theoretical Framework

Students' motivation to learn, confidence and self-esteem, questioning abilities and self-directed learning are all improved by using digital tools. According to Nykvist and Mukherje (2016), students' presentation skills as well as their problem solving and communication abilities are also improved. Effective online learning, however, requires strategic leadership, pedagogical expertise, and technological experience, as well as assistance with the new tasks of both

the lecturer and the student, according to King and Boyatt (2014). As a result, we based this study on the "model of acceptance and usage of e-assessment" (MAUE) as our theoretical lenses to explore students' experiences with online assessment. MAUE is a concept developed by Sadaf, Newby and Ertmer (2012) based on technological acceptability (TAM) and the use of e-assessment (UE). The TAM component of the MAUE was developed by Davis (1985) for assessing the use and acceptability of e-assessment by academics (both lecturers and students). The TAM reflects how users feel about and desire to utilize digital tools. Users' intent to utilize technology are predicted to be influenced by factors such as perceived usefulness and perceived ease of use.

> If a person believes that utilizing a certain system would improve his or her job performance, they have high perceived usefulness, and if they believe that using a particular system will be easy, they have high perceived ease of use (Davis 1989:320).

According to the MAUE, there are three broad determinants of use and desire to use the digital tool. These determinants are attitude, subjective norm and perceived behavioural control. Attitude is further classified into three components: perceived utility, perceived simplicity of use and perceived utility, as well as compatibility. Subjective norms consider the role of social factors such as peer pressure, persuasion and supervisory influence. This theoretical framework is relevant for this study to understand whether students have adopted online assessment procedures and perceived ease of use of online platforms as forced upon them by Covid-19.

University Students' Experiences of Online Assessment in South Africa

The empirical study took place at a rural university in the Eastern Cape Province, where students were taught via online learning platforms following the implementation of the Covid-19 lockdowns on 26 March 2020. Only a handful of South African universities were able to implement what is now known as emergency remote teaching and learning and assessment as an adaptable technique during the 2020 pandemic. Nonetheless, little is known about these students' experiences for a continuous time of online learning and assessment. This is the subject of the current study.

Experiments with Student Assessment

Student assessment experiences can broadly be explained as the time students spend on formative and summative activities towards cognitive investment, active participation, emotional engagement, and ultimately feedback (Andrade 2019; DeLuca *et al.* 2018). Student assessment experiences offer an opportunity for faculties to assess and analyse course content and provide the care and support needed by students to succeed in their academic work (Double, McGrane & Hopfenbeck, 2020). In the past, students used assessment data to improve their well-being (Wong 2015), but in an increasingly competitive enrolment landscape exacerbated by the Covid-19 pandemic, an impactful student assessment experience has become more critical than ever.

Students' experiences, perceptions and happiness with online assessment are associated with a variety of aspects that contribute to student achievement, including self-regulation, time management, self-evaluation, and prompt feedback on performance (Kauffman 2015). Evidence of different student assessment experiences indicates that it may support or diminish their motivation and performance, depending on the way it is designed, implemented and used (Pötschulat, Moran & Jones 2021). Assessments that are not well designed and implemented may contribute to alienating students (and lecturers) and exacerbating inequality in education. On the other hand, carefully planned assessment interventions that are well aligned with learning goals and place students at the centre of the teaching and learning process have the potential to raise achievement and reduce disparities.

Empirical research on the impact of education policies and practices on student assessment experiences is conceptually and methodologically challenging (Mpungose 2020). Some of these experiences are shaped by a range of extra- and inter-institutional factors, including family background, abilities and attitudes, organisation and delivery of teaching, school practices, and the characteristics of the different assessment practices in higher education institutions (OECD 2013). Studies measuring the impact of different assessment policies on student achievement tend to use data sets and methodologies that provide limited measures of learning and partial indicators of the range of important factors (OECD 2013). The outcomes and policy recommendations of such research are sometimes contested, especially when they generalise results across different contexts. Bearing these limitations in mind, a range of policy-relevant conclusions can nonetheless be drawn from the numerous studies exploring the

link between student assessment experiences and learning out-comes.

In the current context, relaxed and flexible assessment criteria will facilitate the transition to online learning now and in the foreseeable future. According to Veletsianos and Houlden (2020), by incorporating radical flexibility in student assessment, higher education institutions can support more equitable, just, accessible, empowering and imaginative educational futures. Researchers such as Mahlangu (2018) and Saykili (2018), on the other hand, espouse the general concern on the drawbacks of the current system concerning accessibility, equality and security. This is because systems that do not take into account the exigencies of the current circumstances to make accommodations towards flexible student assessments may become antithetical to the goals of education and the ideals of a just and equitable society.

Assessment Procedures

Assessment procedures describe the approach used for student assessment within different education systems (Asamoah 2019). This pertains to the scope of assessment, content coverage and important related features that must be observed. Features may take the form of an assessment instrument (i.e. oral, written, observation, projects, case studies, portfolios), or assessment formats such as multiple-choice questions, short answers, essay questions and nume-rical problems (Asamoah 2019; Tosuncuoglu 2018).

Some higher education institutions in South Africa had challenging as-sessment experiences during the peak of the pandemic. This was because there were no clear policies and guidelines regarding online learning and assess-ments. For example, several questions that focus on what to teach, how to teach it, what should be assessed, the duties of the lecturers and students, the teaching environment, and implications for social justice became central talking points (Mncube *et al.* 2021; Mpungose 2020). Before the pandemic, assessment pro-cedures served evaluative and feedback purposes and ensured validity, relia-bility and fairness (Huber & Helm 2020). Presently, online teaching challenges in the face of non-existent policies, guiding principles and procedures for many institutions have made the task of assessment more difficult. Mncube *et al.* (2021) believe that a possible solution is for online learning to be structured with appropriate pedagogical principles, while taking into account the different assessment options, to improve the quality of online assessments.

Some institutions, though, are not wholly supportive of online learning, even in the present circumstances. For example, Almeida and Monteiro (2021) explain that, to increase the motivation levels of online assessments, traditional and online assessment practices need to be reconciled to serve teaching for the future. This is because a post-pandemic assessment must be seen as a form of diagnosis rather than classification. The need, therefore, arises for student-centred approaches, such as problem-based learning, self-learning, simulation activities and self-assessments, to accommodate students in the current unstable teaching and learning environment.

Technology that Facilitates Online Learning at Higher Education Institutions

Technology has changed the face of education delivery worldwide. This change has seen a shift to open-source, online-based learning platforms (Deliwe 2020; Turnbull, Chugh & Luck 2021). The impracticability of in-person education during the Covid-19 pandemic and the slow pace of education by mail have prompted most higher education institutions to favour software that makes it possible to mediate teaching and learning in real-time, conveniently, and efficiently.

Learning Management Systems (LMS), also known as Content Management Systems (CMSs), are software applications that allow lecturers to post and update course materials and interact with students (Alokluk 2018; Turnbull *et al.* 2021). LMS further promotes collaboration between students and lecturers and enables feedback to improve the performance of students.

LMSs were a common feature in developed countries before the pandemic (Deliwe 2020). Turnbull *et al.* (2021) argue that the most widely used LMS at most higher education institutions around the world is the Modular Object-Oriented Dynamic Learning Environment (MOODLE). Besides MOODLE, there are other LMSs such as Google classroom, AWS Educate and Blackboard (Turnbull *et al.* 2021).

In South Africa, a full integration onto LMS may lead to a loss of personal contact that in-person education accords (Mlotshwa, Tunjera & Chigona 2020). In addition, not all students have access to internet connectivity; therefore, a post-pandemic, hybrid approach based on students' contextual situations should be used so that assessment concerns can be properly addressed.

Methodology

This study employed a pragmatist paradigm underpinned by the mixed-methods technique to examine the online assessment experience of rural university students during the Covid-19 outbreak. We conducted a cross-sectional survey of students enrolled in the division of Natural Sciences Education, Faculty of Education at this university in the Eastern Cape Province.

An online questionnaire was used to collect quantitative data (through closed-ended items) and qualitative data (open-ended items). This data collection format facilitated the use of a fully mixed. concurrent, equal-status design (Leech & Onwuegbuzie 2009), which incorporates qualitative and quantitative research elements within or across the following four components: research objective, data and operations type, type of analysis and type of inference (Onwuegbuzie & Ojo 2021:3). The quantitative and qualitative phases of this investigation were combined concurrently across all of these components, with approximately equal weighting given to the quantitative and qualitative components. Prior to triangulating the results, a concurrent mixed-method data gathering strategy was used to validate the various study approaches (quantitative and qualitative). Additionally, the ongoing data gathering technique aided in enhancing and explaining complex or contradicting survey results (Wium & Louw 2018).

The current study examined third-year students enrolled at a rural South African university pursuing a Bachelor of Education (Natural Sciences) degree in the Eastern Cape Province. The university is located in a historically and socially disadvantaged neighbourhood as a result of the apartheid government's practices prior to 1994. Due to their remote location, this university found it particularly challenging to make the abrupt change from face-to-face to online teaching and learning (Mbodila, Bassey & Kikunga Masehele 2016). The participants were chosen using a convenience sampling technique. Convenience sampling was deemed appropriate due to the researchers' proximity to the individuals (Kumar 2011). A total of 108 students were chosen. Nearly two-thirds of sample members (n=63, 58%) were female, whereas approximately one-third (n=45, 42%) were male. In terms of age, the largest group was those between the ages of 18 and 24 (n=48, 44%). The 25–34 age group (n=18, 17%) was followed by the 35–44 age group (n=18, 17%), and the 44-plus age group (n=10, 9%). The majority of students (n=96, 89%) were local students, while the remaining students (n=12, 11%) were

international students. In terms of race, the majority of students (n=76, 72%) were Africans, while 19 (18%) were Coloured and 10 (13%) were Indian. Each participant was a third-year student who has enrolled in full-time study and is majoring in Physical Sciences and Mathematics Education. The majority of participants reside in rural villages and in informal settlements where network connectivity is difficult to create and maintain. South Africa is well-known for its high levels of inequality (Parker, Morris & Hofmeyr 2020), and stark inequities exist in rural parts of provinces such as the Eastern Cape, where the bulk of the population is dependent on monthly government grants.

Concurrent Design with Identical Samples was employed as the mixed-methods sampling strategy (Collins, Onwuegbuzie & Jiao 2007). This design was chosen because all 108 individuals participated in both the quantitative and qualitative phases of this research project. In addition, all qualitative and quantitative data were collected concurrently. According to Collins *et al.* (2007), this approach of mixed sampling is utilized in 14% of mixed-methods research investigations.

The primary data-collection instrument was a three-part, online questionnaire (both open-ended and closed-ended). The first section discussed students' demographic features. Gender, age, race, student status (international or local), level of economic status, type of learning platform used and digital gadgets available at their institutions were all considered.

Sections B to D comprised a 5-point Likert scale questions (ranging from 'strongly disagree' to 'strongly agree'). The dimensions considered under the Likert scale questions were the following: students' assessment experiences, assessment procedures within the period, and technological services support.

Section E, the third section, elicited open-ended responses. The questions specifically asked students to recount the following briefly:

a) their personal assessment experiences during the Covid-19 pandemic;
b) the techno-logical support services and study materials received during the pandemic; and
c) whether they received prompt feedback on assessment submitted.

To collect data from our respondents, we designed an online questionnaire. The online questionnaires were administered to students in June 2021, after the university's research committee had granted ethics clearance.

Students were informed about the objectives of the study through the faculty Facebook page and their respective learning management systems. Since one of the authors was lecturing these students, access to students' e-mail addresses was not a problem. Hence, the questionnaire, together with consent forms were then sent to the students via their approved student e-mail addresses.

The completed questionnaires and signed consent forms were returned. Participants were assured of confidentiality and anonymity of their participation.

Data Analysis

In accordance with the concurrent study design, quantitative data were analysed first, followed by the qualitative data. Data collected from the questionnaires were cleaned and exported to SPSS (version 23) for analysis. Missing quantitative data were excluded. Analysed quantitative data are presented in Table 1 and Table 2 using descriptive statistics, reported as frequencies, percentages, mean and standard deviations.

Responses to open-ended questions were analysed qualitatively using a thematic framework to generate themes. We captured the responses on an Excel spreadsheet. After engaging with the text, an inductive thematic analysis was performed for the identification of preliminary codes (Braun & Clarke 2019). The preliminary codes indicated the context of the research and gave a sense of how students appreciated assessments concerning the context under study. Next, we conducted an interpretive analysis of the codes generated to organise and separate codes based on similarities and differences. This produced subthemes and themes towards an end goal.

Finally, we conducted a deeper review of the themes identified from the codes generated. Synonymous codes were refined and merged to have clear and identifiable distinctions between themes. The semantic differentiation of themes was also ensured by focusing on the descriptive expression of respondents while latent discourse to a detailed interpretive and explanatory analysis was reserved for the discussion stage of the study. The next section therefore triangulates results from the closed-ended questions as well as the open-ended responses.

To determine the instrument's quality, the Cronbach's Alpha test was used to determine internal consistency. This test determines the degree to which all of the questionnaire's items measure the same idea (Taber 2018).

Values greater than 0.7 are regarded as satisfactory. Each questionnaire falls within the permissible range of values, ranging between 0.702 and 0.845. Additionally, the Average Variance Extracted (AVE) and Composite Reliability (CR) were calculated to assess the measurement quality. The AVE function should return values greater than 0.5 (Fornell & Larcker 1981, Hair *et al*. 2014). The surveys' calculations yielded values between 0.5 and 0.7. With relation to CR, it describes a variable's reliability level, and values should be more than 0.7 (Fornell & Larcker 1981, Hair *et al*. 2014). The values for the questionnaire varied between 0.7 and 0.8 in this situation.

Results
Demographic Data

Table 1: Demographic characteristics of participants by domain

Item	Category	Frequency	%
Gender	Male	45	42
	Female	63	58
Age	18–24 years	48	44
	25–34years	32	30
	35–44 years	18	17
	45 and older	10	9
Racial grouping	African	76	72
	Coloured	19	18
	Indian	13	10
Student status	South African	96	89
	International	12	11
Level of economic activity	Employed	17	16
	Unemployed	91	84
Institutions' online learning environment	Google Blackboard (BB)	66	63
	Moodle	31	29
	Other	10	8
Technology provided by	Computer	44	40
	Internet	32	30

institutions to meet students' needs	None of the above	32	30

Overall, 58% of respondents were female and 42% were male. Of this number, the age range was as follows, 18–24 years (44%), 25–34 years (30%), 35–44 years (17%), and 45 years and older (9%). Africans were the dominant race, comprising 72%, followed by Coloureds at 19% and Indians at 13%. The status of students showed that the majority (89%) were South Africans, with 11% being international students. The level of economic activity indicated that 84% of students were unemployed while 16% were in employment.

Table 2: Mean and Standard Deviation for the students' online assessment experiences, assessment procedures and the technological support services influence on online learning

	Domain	Mean	*SD*	Kurtosis	Skewness	Total reliability for all dimensions
1	Students' online assessment experiences during the Covid-19 pandemic	3.0007	1.3515	-0.6062	0.2566	0.8124
2	Assessment procedures during the pandemic	2.73688	1.14443	-0.39066	-0.09675	
3	Technological support services' influence on online learning	2.59392	1.18771	0.1416	0.3675	

The descriptive statistics provided in Table 2 reflect the results and observations of the three domains on the Likert scale as computed. These domains are student assessment experiences during the Covid-19 pandemic; assessment procedures; and the influence of technological support services on online learning. Table 2 shows the mean score of students' assessment experiences during the pandemic to be 3.0007, with a standard deviation of 1.3515. The mean score indicates a positive student assessment experience during the Covid-19 pandemic. The standard deviation is approximated based on the coefficient of variation (CV=standard deviation/mean). Therefore, when the CV>1, it is an indication of a relatively high variation, while a CV<1 is considered a low variation (Pélabon *et al*. 2020).

Since the standard deviation for student assessment experiences is 1.3515, it presupposes that there is a degree of acceptable variance of data about the mean. The second domain, which comprises assessment procedures, had a mean score of 2.73588 and a standard deviation of 1.14443. The mean score purports to show that assessment procedures within the period of the pandemic were adequate. The standard deviation, as calculated, points to the fact that data are evenly spread out, although much clustered about the mean, compared to student assessment experiences at the height of the pandemic.

On how technological support influenced the students' online assessment, there was a mean score of 2.59392, with a standard deviation of 1.18771. Even though the mean score obtained is positive, it is the lowest in comparison to the overall student experiences and assessment procedures within the same period. The corresponding standard deviation informs that this is a comparatively evenly shared view among students surveyed. Again, the level of technological support may explain a low student assessment experience.

Students' Assessment Experiences
As already described, the open-ended responses were analysed qualitatively to give a sense of how students appreciated assessments concerning the context under study. In effect, we sought to refine the codes to generate the themes.

Self-motivation
This theme entails three sub-themes: a) self-directed learning; b) greater convenience in place of study; and c) student centred constructivism.

Self-directed Learning

Findings revealed that the sudden switch from face-to-face teaching and learning evoked a sense of responsibility in students as they set their own learning goals, monitored them and evaluated what they were able to learn within specific time frames. Also, since the sudden switch to online learning was new to both faculty and students, students had the advantage of self-assessment prior to writing the actual assessment. Although students did indicate an increase in formative assessment, which they initially thought to be an inconvenience prior to the writing of summative assessment, it ultimately led to an increase in their grade point average. One of the students commented:

> *I felt in charge and more empowered as I worked my way through my assessments with little support from my lecturers. I never thought I could do this on my own. Although I miss my friends but I am happy of the opportunity to help myself throughout this period.*

Greater Convenience in Place of Study

Students recounted their experiences of the convenience of studying from home in the midst of restrictive lockdown measures. They were able to set their own schedules and take breaks when needed in the comfort of their respective locations. Compared to normal schooldays, when they had to wake up early to prepare and take transport to overcrowded lecture halls, the switch to online learning was much more convenient. Many of the young students were able to consult with their family members to guide them through assessment-related tasks.

Comments from students who alternated between work and school prior to the pandemic showed two opposite effects. The first was a feeling of detachment from friends that impacted their social lives, while the second was a sense of security as they feared crowded, potentially super-spreader situations in the lecture halls. This fear was more prominent amongst adult and mature learners who felt they could catch the virus from their younger colleagues. An adult learner recounted her observation as follows:

> *Online classes were the best option I could ever have under the current circumstances. Being an older adult, juggling between work and my studies, as I did before, took a toll on me to the point that I*

considered quitting my studies. Currently, online classes fit my daily schedule perfectly and I enjoy the self-paced environment. This is really a life saver indeed.

Student-centred Constructivism

Students felt that their new normal provided them with an opportunity to construct their own learning as they read through their tutorial letters and study guides online. Also, lecturers, who were themselves battling to communicate effective teaching methods online, relied on students to be able to understand what was sent to them online. Students were free to discuss issues from different perspectives and achieve greater levels of personal reflection. The blog sessions that were introduced by some lecturers proved useful. In these sessions, there was no right or wrong answer to topics under discussion; rather, the fact that these discussions served as building blocks to the main or final answer was very encouraging for some students. Below is an observation of a student:

> *My colleagues made me a team leader in one of the groups for the blog sessions and, for the first time in my academic life, I had to moderate the views and discussions of my group. It was not easy at first but I did my homework by researching on the topic we had to discuss and I made a good impression. I really gained confidence with this.*

Students' Contextual Challenges

This theme entails the following sub-themes: a) technical and connectivity challenges; and b) stressors.

Technical and Connectivity Challenges

The assumption was that all students would be able to navigate their online spaces and work from their respective locations but students recounted issues about their varying levels of technology access and proficiency. Some of the LMSs were not user friendly and there were days that prompts in the LMSs did not respond as expected. Other students maintained that they were unable to

log onto their LMSs although the institution had provided them with usernames and passwords, and students who lived in areas where network connectivity was poor were forced to find better network reception areas.

Several students concisely, but clearly detailed the challenges they had encountered due to insufficient network access, including the following sentiment shared by a student:

> *My residence has almost no network coverage; I have to travel to the other village to receive coverage. Because of poor network, I failed a test because I was frantically searching for a network connection while writing the test. Hence, I could not submit my work on time.*

There was also the challenge of hardware and software compatibility. Some students had the impression that either their institution or the Department of Higher Education would provide them with laptops as announced by the Minister of Higher Education. As this did not materialise, students themselves had to buy smartphones with bigger memory and storage space to be able to download study materials and related assessment tasks. A remark from one of the students who shared concerns on technical and connectivity issues is below:

> *My phone does not have a big memory and storage space to download all the stuff and there was no money to get a new one quickly so I was hoping that the university or government would provide us with something. Online studies are nice, but it is difficult if you are poor and don't have everything that makes it work like me.*

Stressors

At the beginning of the pandemic, some students enjoyed learning from home but, as reality set in, their motivation levels decreased. They reported that the social and political environment around them increased their stress levels, particularly those whose relatives were either infected or affected during the peak of the pandemic. Both parents and siblings demanded attention and interfered with students' planned schedules as they had to respond to the needs and dictates of the home. These distractions affected the end of cycle assessments. The following are some of the accounts of students:

It is stressful now compared to when I used to attend lectures daily. Back then, I used to escape these household chores using my schoolwork as an excuse, but now it's not easy. So, I have to push my studies to midnight and sometimes I am not able to participate in the blog discussions due to tiredness.

Being home means that you cannot ignore household chores. My children needed time at this moment, and it was not easy giving them study time as their school did not assist them with any study materials, so I was their teacher in addition to teaching myself plus parental duties. As a single mother, it was unbearable. Am not sure my marks for my assessment will be good this year. Besides my lecturer is too strict and does not want to even understand what I am going through when I tried to explain my reason for late submissions.

Feedback

This theme had one sub-theme, namely slow response time.

Slow Response Time

Students were concerned about the response time after they had submitted their assessments, because some of the lecturers were directly or indirectly affected by the pandemic, which led to staff shortages.

In addition, the institutions' LMSs had their own challenges as they were still in the trial stages and were suddenly overloaded, particularly at peak times, when students submitted completed assessments. When this happened, some of the lecturers made alternative arrangements for submission, which proved cumbersome. The following are observed students' responses:

Unfortunately, two of my lecturers had Covid-19, so we were told a new lecturer will be assigned to the programme but we were kept waiting. But I continued to submit the rest even when no one responded.

We had to wait because my lecturer was doing graduations for Masters and Doctoral students so attention was not there. Besides, we could not even get them at this time of the year. This semester has not been good at all.

> *We were told to just upload our completed assignments, but the system will just not accept it and I know it's not only me. The university software keeps crashing all the time. I think it's better to post or something, because it is like we have not done the work and we are lazy if we send late. Some of the lecturers do not understand when you explain.*

Discussions

Pötschulat *et al.* (2021) explain that assessments that are not well designed have the potential to alienate students and exacerbate inequality, but the triangulated results show that students had a positive assessment experience during the period of the pandemic. Some of the students acknowledged that they were able to take responsibility for their studies through self-directed learning. Similarly, there was an increase in student-centred constructivism as lecturers allowed students to share and exchange views, and believe in their capacity to lead and be autonomous (Double, McGrane & Hopfenbeck 2020). Students used the blog discussions as an opportunity to control their own learning as Mahlangu (2018), in support of self-directed learning, explains that allowing students the flexibility to learn from themselves enabled them to play a central role in the learning process.

Students' experiences in the assessment procedures during the period of the pandemic were generally positive, but the quantitative analysis showed that this was not true for all students surveyed. The responses given under the subtheme for self-directed learning revealed that there was an increase in formative assessments when online assessments began. It is therefore assumed that some lecturers encouraged and promoted formative assessments, especially peer and self-assessments, as a means of offering students the opportunity to reflect on past work and demonstrate growth (Broadbent, Panadero & Boud 2018). Huber and Helm (2020) believe that assessment procedures will continue to serve an evaluative purpose after the pandemic and beyond until policies and guiding principles are developed. In the absence of these policies and guiding principles, it is assumed that lecturers will continue to increase formative tasks to ensure that students understand the concepts before initiating summative assessments.

Technological support received mixed responses and scored low according to both quantitative and qualitative outcomes. The abrupt shift to

online learning as a result of the lockdown did not consider whether devices were available to students to mediate their teaching and learning, whether hardware and software were compatible between the institution and the students' devices or whether students had internet access. Students had problems downloading study guides and tutorial letters, and uploading completed assessments and, by extension, feedback was also affected. Mixed responses from policy makers also impacted students' attitudes towards their institutions' assessment schedules negatively.

Limitations

This study involved a higher education institution from a province in South Africa and a sample of 108 students drawn from a department within the Faculty of Education. Generalisations must therefore be made advisedly. As the study's main theme was students' assessment experiences during the Covid-19 pandemic, related topics that may be explored in future could be academic integrity, the effectiveness of interactive online tools, and the impact of the Covid-19 pandemic on the mental health of lecturers.

Conclusion and Recommendations

The coronavirus pandemic has changed how millions of people around the world learn, are assessed and receive feedback. With student assessment experiences being the central theme of this study, the results indicate that, to navigate through such shocks in the future, requires students, higher education institutions, as well as governmental departments to be fully prepared.

Some student-level factors, such as motivation, became catalysts to self-directed learning and student-centred constructivism. This showed that student-content interaction improves and shapes their learning experiences. This, in turn, increases students' online assessment experiences which leads to an increase in the assessment success rate.

On the contrary, the potential for learning gaps to widen is far greater in online settings than in traditional learning spaces. Therefore, lecturers using LMS must first examine how their use of this medium to communicate assessment content will enhance pedagogy.

The Covid-19 pandemic has become a catalyst for innovation in higher education institutions within a short space of time. The findings of this study

show that a positivist approach that objectified learning from the past is now making way for a constructivist approach that includes students' views and inputs in the teaching and learning process. Therefore, assessments must be included in students' personal reflections, portfolios and projects, instead of tests and quizzes. Lecturers' use of online tools must therefore maximise student engagement in knowledge creation and liberate them from time, distance and assessment constraints.

On the issues of access, equity and equality, the government is expected to create an enabling environment for both students and higher education institutions. This view was reiterated by students who said that they waited for the Department of Higher Education to honour a pledge of free laptops for all. Government must therefore assist higher education institutions with guiding principles and procedures regarding access to online learning for the poor and marginalised through process, course design, development, delivery, support and assessment.

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