

## **Mediating E-Learning Assessment in the Advent of a Global Covid-19 Crisis: a case of University of Limpopo**

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### **Abstract**

Assessment is the cornerstone of every teaching and learning in any institution of higher learning. A variety of modes of assessments exists in assessing student learning in online environments. However, development and administration of these online assessments is plagued with a myriad of challenges emanating from various factors. Now, the advent of COVID-19 pandemic on the 5<sup>th</sup> March 2020 in SA just added more challenges to the already existing myriad of challenges. Based on the quanti-qualitative research approach, this article probed lecturers' knowledge regarding the development and administration of online assessment in one selected South African university in Limpopo Province. The study adopted Needs Analysis Framework and exploratory design. Thus, this study that used an exploratory design to explore, identify, examine lecturers' online assessment knowledge and practices. Data were elicited using a self-designed questionnaire and in-depth interviews a random sample of a heterogeneous group of 38 university lecturers in various departments to provide a comprehensive summary of lecturers' e-learning assessment practices, modes and the development of e-learning assessment instruments. Convenient sampling was utilised to collect data. Discriminant Function Analysis indicated a myriad ten interrelated variables. Variables included assessment practices that are not consistent with an online teaching and learning situation. Lack of adequate training on e-learning assessment practices; and the silence of institutional Teaching and Learning policy on e-learning assessment. An analysis of the data revealed the following key findings: dominance of one mode of e-learning assessment and this could be attributed to the fact that most lecturers still cling to conventional learning practices. Lack of lecturers training to facilitate e-learning assessment based-pedagogy. The findings may help policy makers, Information Technology practitioners or trainers or instructors on how to

best train lecturers and lecturers on how to produce teaching and learning materials that support successful e-learning.

Keywords: COVID 19 pandemic; Pedagogy; Higher Education, Learning; Self-Regulated Learning; E-Learning; online assessment

## **Introduction**

Very few studies have reported on the types and distribution of assessments that are used by instructors to contribute to students' overall grades in an online course (Kearns, 2012:199). This paucity of research in literature also plagues South African-based research output. Research on the lecturers' knowledge regarding online assessment, development of online assessment instruments and as well as overall assessment practices at a formerly black university in South Africa during this time of COVID-19 is relatively low. The factors that affect successful, quality and effective e-learning assessment in this formerly 'black' university has not yet been adequately explored. What is found is largely anecdotal evidence about this issue regarding how online assessment is carried out. It is for this reason that this article underscores the importance of having scientifically researched evidence as far as knowing adequately how online assessment instruments are developed and administered. The other important factor is to scientifically and systematically assess online assessment practices in this institution so that adequate and scientific evidence can be gathered. Thus, this article sought to explore lecturers' online assessment knowledge and practices during the COVID-19 pandemic in a formerly 'black' university in Limpopo Province. In an attempt to address the above mentioned challenge, the article endeavoured to answer the following research questions:

- What are the challenges faced by lecturers regarding online-learning assessment as an alternative to conventional face-to-face learning assessment practices in a selected institution as perceived by them?

The study formulated the above research question because it wanted to achieve the following five research objectives, namely:

- To identify online assessments mode preferred by lectures and why.
- To find out the challenges faced by lecturers when developing online learning assessment as an alternative to conventional face-to-face assessment during COVID-19 pandemic as perceived by them
- To explore online assessment practices in the identified department with the aim of providing scientific data to enable improvements measures.
- To suggest recommendations to improving online assessment practices in the identified department at this selected institution?

The researcher strongly believe that information collected from the results of this study will help in identifying, examining and most importantly illuminate elements that comes into play as far as the challenges regarding online assessment encountered by various lecturers are concerned.

## 2. Literature Review

### 2.1 Brief institutional background

University of Limpopo then university of the North came into being on the 1<sup>st</sup> August 1959 but was founded as the University College of the North and was later became known as the University of Limpopo (01 January 2005) after the merger with the Medical University of Southern Africa. The extension of University Education Act of 1959 made provision for the establishment of racially exclusive universities for black South Africans. This apartheid regime policy imposed Bantu Education as a systematic form of educational exclusion based on race. The College was placed under the academic trusteeship of the University of South Africa. This formative relationship was maintained until the South African Parliament promulgated the University of the North Act (Act No. 47 of 1969) thus bringing to an end the College status as of 01 January 1970. University of Limpopo (1959-2019) celebrated its 60<sup>th</sup> year in 2019. It has four Faculties: Health Sciences, Humanities, Management and Law, and Science and Agriculture. According to its website, University of Limpopo (UL) has an average enrolment of about 22 000 students. The approximate number of first year students in 2015 was 3,400. Many students in this type of institutions are from rural areas and most are from socio-economically deprived communities, come from impoverished backgrounds generally characterised by low socioeconomic status among adults, resulting in inadequate incomes, low level of education and limited opportunities for cognitive development (Sikhwari, 2007:524). UL s it is known, offers different types of degrees up to doctoral level and as well as some certificates.

L mainly rely on government subsidies and student's fees to sustain itself. Thus, most of its resources are either bought by the institution or donated by interested stakeholders. This status quo, impact negatively directly or indirectly on the issue of online assessment and this among other factors, is due to the fact that lecturers have to be trained adequately by relevant professionals who need money to do the training (It has to be noted that UL does its own training of lecturers using university ICT department.

### 2.2 Brief current debates on online learning assessments in institutions of higher learning worldwide including in South Africa

The debate on the impact of COVID-19 on education around the globe continues to rage and it looks like it will keep on raging for as long as COVID-19 persists. Its impact will continue to be felt far and wide. One of the most important problems in online distance education practices is the issue of evaluating student success and performance (Yilmaz, 2017:40). Yilmaz (ibid) maintain that it is seen that mostly the assessment and evaluation practices used in traditional face-to-face classroom environments are used for evaluating student success and performance in online distance education programs. In the 2020, UL developed and produced a document titled 'Emergency Assessment Plan during COVID-19 for the 2020 academic year'. This document serves as a guideline to 'assessment practice' on top of other university legislative documents. However, the challenge with this document is that it is silent on many important issues around online assessment.

It is seen that there is not a standardization of the assessment and evaluation activities of higher education institutions of today each university individually determines which evaluation methods they will use as well as according to which parameters they will score or the type of assessment and evaluation practices, therefore, a lot of problems are encountered (Yilmaz,2017:40). This seems to be the problem also plaguing SA institutions of higher learning like the one in this study. Currently, it looks like the university in this study is oblivious to the impact that this challenge will pose to the entire university quality credentials.

Lecturers' technology based assessment knowledge, their knowledge and experience on alternative online assessment and evaluation techniques, their attitudes and beliefs towards these techniques are crucial factors in the successful online assessment strategy, thus the reason for this study.

During the COVID-19 pandemic institutional closures required a swift transition to online instruction, a skill many were not prepared for especially with such short notice and such little training if any at all (Kaden, 2020; Ferdig, Baumgartner, Hartshorne, Kaplan-Rakowski, & Mouza, 2021). Okereke, Williams, Emmanuella, Ashinedu and Mairaj (2020:02) in their study titled 'Covid-19: Challenges affecting the uptake of e-learning in Pharmacy education in Africa' lamented the impact of COVID-19 on education in Africa by saying that 'the impact of the COVID-19 outbreak on education in Africa is very disastrous'.

Online assessment like any other form of educational assessment is a skill on its own. People conducting such an assessment should be content with their skill and believe in the method or strategies they are applying. However, Yilmz (2017:47) in his study found that lecturers do not find online exams reliable. In other words, their belief on this form of assessment is not as it is expected. This makes it even more important to know how COVID-19 has affected online assessment in other disciplines.

Though the benefits of using online learning in education as a form of new pedagogy has long been acknowledged (Uziak, Oladiran, Lowrencowicz & Becker,2018; Alokuk, 2018, Le Grange,2020; Naidoo & Cartwright, 2020: Mncube, Mutongoza, & Olawale, 2021).), a widespread view persists that this form of pedagogy is facing a myriad of challenges particularly in Africa where infrastructure is not yet adequate for this form of pedagogy. This applies to online assessment as well because one cannot talk of pedagogy exclusive of assessment. Al-Hunaiyyan, Al-Sharhan and Alhajri (2017) also affirms this view by arguing that this new form of pedagogy introduces a new layer of complexities into the management of teaching programs and this include online assessment. Thus, it is very crucial to explore and understand online assessment practices so that relevant and effective intervention measures can be put in place. It has to be noted that the researchers in this study, contend that irrelevant and ineffective online assessment practices compromise the quality of tuition at any institution and thus result in poorly prepared graduates.

Furthermore, it has also been found that research suggests that institutions have yet not achieved high levels of effective technology use (i.e for pedagogy purposes) even in technologically advanced countries (Mueller, Wood, Willoughby, Ross, & Specht, 2008; Tondeur, van Braak, & Valcke, 2008). Now, if that is the situation one cannot help but wonder

what is happening in institutions that are poorly resourced such as the one in this study. To complicate the problem further, it is found note that "the distant nature of Web-based approaches renders difficult many observational and participatory assessments"(Hannafin, Oliver, Hill, Glazer, and Sharma,2003:256) In addition to the problem above, a study on the use of technology by teachers in the US indicated that though teachers used technology in classrooms, their use of technology was limited to administrative purposes rather than pedagogical tasks (Ertemer, Ottenbreit-Leftwich, Sadik, Sendurur, &Sendurur (2012). This assertion seems to be bring forth the reality persisting in SA institutions of higher learning as it shall be seen later when data about online assessment in this study is presented and discussed. It is against this backdrop that the present article will attempt to explore, establish and examine the online assessment challenges faced by lecturers and as well as their online assessment practices specifically in one selected formerly 'black' institutions in Limpopo province, South Africa.

### **3. Conceptual Framework**

The article used perceptual measure approach (Fraser & Walberg, 1981) combined with interpretational analysis advocated by Winegardener (2001) as its linchpin. The philosophy behind these two approaches is very relevant in gathering perspectives of a particular research subject or subjects when it comes to various phenomena. Krumbein, Dyer Perry and Kolb's views are apt when one attempts to establish whether an external chaotic factor such as a pandemic (in this case COVID-19) can have such an impact on the teaching and learning of students in their cultural context. Secondly, in order to properly explore, examine, probe, analyse and understand the perspective of lecturers regarding their online assessment practices. It is evident that this kind of a situation would need to be addressed and looked upon from an African perspective. Therefore, an apt and relevant foundational theory in this regard would be the Afrocentricity theory by Asante (1988). In this theory, phenomena are viewed from the perspective of the African person (Asante 1988: 171). The emphasis here is that for long lasting solutions, problems afflicting African countries such as South Africa can best be understood, illuminated and resolved from an African perspective, not Western or Asian as is presently the norm (Madadzhe,2019:208). This is so because among other things socio-political situations are in different countries vary. The relevance of this in this study is that, formerly black institutions who are still suffering from lack of resources can be understood and helped from an 'insider' perspective.

The next section delineates the issues and reasons that guided the collection of the data and their analysis. This research methodology section also serves as a prelude to the discussion of the data that follows thereafter.

#### **3.1 The current study**

The purpose of the current study was to explore, examine and analyse lecturers' online assessment perspectives, preferences and also to investigate their online assessment practices in their respective institution during COVID-19 pandemic. Lecturers completed a comprehensive questionnaire and also participated in in-depth interviews in an effort to address the above mentioned issues.

#### 4. Research Methodology

##### 4.1 Purpose of the study

The main aim of this article is to explore, examine and analyse lecturers' online assessment perspectives, preferences and also to investigate their online assessment practices in their respective institution during COVID-19 pandemic in a specifically selected institution (formerly black university) of higher learning in Limpopo province, South Africa. It probes and examines these issues from the viewpoint of the lecturers and complement this by focusing on specific issues that tie well with the investigated construct based on other scholarly work. Among other things, the reason for this study is because the positive-spin offs associated with e-learning are sometimes portrayed in such a way that they often cloud or over shadow the challenges that comes with it. This is what Patten, Sanchez and Tangney (2006) called 'naïve optimism'. The other reason for this study was due to the novelty situation of COVID-19 situation facing the SA higher education institutions and the world at large. This paucity of literature on this matter from a South African point of view (particularly from formerly black institution) is a cause for concern. Thus, it is envisaged that this study would add even in a small way add another layer to the growing body of knowledge on the online assessment practices of lecturers in higher education institutions from a South African point of view. This study will also help in contributing to the constellation of institutional impediments to the adoption of successful online assessment poorly resourced SA institutions of higher learning.

##### 4.2 Design, Methods, instruments, participants, sampling, procedure and limitations

The qualitative exploratory study involved lecturers who filled in questionnaires that were sent electronically via their emails. Respondents were members of the Department of Languages at University of Limpopo and their emails were obtained from the said department's directory. It was hoped that the questionnaires would glean the respondents' knowledge and application of assessment, particularly online/e-assessment that became the norm during the latter part of 2020 and early 2021 when the Covid-19 pandemic was in full swing, necessitating total relinquishing preference and application of face-to-face assessment in favour of e-assessment.

The study sample consisted of 10 respondents purposively selected due to their positions as lecturers at the Department of Languages that committed to using e-assessment, during the Covid-19 lockdown period that commenced from the 1<sup>st</sup> of April 2020. Convenience-sampling method was used, necessitated by the need to abide by the Covid-19 lockdown safety precautions which prohibited physical meetings. Hence, the first 10 respondents that showed willingness to participate in the study by responding to the email by the researchers and filling in the consent form were selected (see Braun & Clarke, 2006). Nine (9) respondents filled in the consent form and completed the online questionnaires whereas one (1) scanned, filled and emailed one hard copy.

The table below shows the total number of research participants who received the questionnaires versus those that responded to them.

No of questionnaire distributed	Returned questionnaires	Total participants	%
25	10	10	40

**Table 1.1: Data about approached and responsive respondents**

The questionnaire comprised 15 questions. This questionnaire included the following

- Three bio-data questions
- Two questions on modules respondents taught and the modules' students' statistics
- One question on assessment employed by lecturers prior Covid-19
- One question about assessment during Covid-19 lockdown
- Three questions based on training on assessment that lecturers received
- Three questions on their experiences with assessment during the Covid-19 lockdown
- Two questions on their general outlook and attitudes about e-assessment.

Out of the fifteen questions, three were single-item questions. They were used to assess demographic variables including participant gender years of teaching experience and number of years being a student such as categories such as 'yes' or 'No'. On those 15 questions, two contained Likert-type scales and research respondents were required to choose from self-rating scales such as 'highly beneficial' 'moderately beneficial' and 'slightly beneficial' responses (See, Neuman, 1997:259). Other questions were open-ended because they offer a valuable opportunity for both the researcher and the research subject. Open-ended questions offer respondents an opportunity to provide a wide range of answers (Hyman & Sierra, 2016).

## 5. Analysis and Results

### 5.1 Analysis

Data collected through questionnaires was analysed through Thematic Content Analysis (Braun & Clarke, 2006). Braun & Clarke (2006) provide a six-step thematic analysis process of mainly identifying, analysing and reporting qualitative data using thematic analysis. The steps are familiarising oneself with data collected, generating initial codes, searching for themes, reviewing the themes, defining and naming themes as well as producing the report. Six (6) themes from fifteen (15) questions were created. These will be presented narratively in line with the thematic content analysis approach. The questions were initially coded into numbers, thereafter allocated to the following themes: Bio-data, students' statistics, Assessment Prior and During Covid-19, Training on assessment during Covid-19, Experience with assessment during Covid-19 as well as Outlook about assessment at universities in the future.

### 5.2 Results and Findings

- Theme 1: Biodata

The below Table reflect the bio-data about the research respondents in this study

Age range	23-30 (1)	31-40 (1)	41-54 (5)	55+ (3)
Gender	Male (3)	Female (7)		
Qualification	Honours (0)	Masters (4)	PhD (6)	

**Table 1.2: Data about bio-data of respondents**

According to Table 1.2 the respondents responded to the questions on their age, gender and qualifications as follows: 1 respondent fell in the 23-30 age group whereas 1 was in the 31-40 age group. Five belonged to the 41-54 age-group whereas 3 were in the 55 plus age-group. There were 3 males and 7 females out of 10 respondents. Lastly, 4 respondents held Masters degrees whereas 6 held PhD degrees.

- Theme 2: Module and students' statistics

Theme 2 comprised of questions 4 to 5 stated below:

Question 4: Among the modules you taught, which one had the largest number of students in 2020?

Question 5: Approximately how many students were registered in the module/course you indicated in question 4?

The following table, Table 1.3 illustrates the module with the highest number of students and the students registered for those modules in 2020.

Respondents	Module Code	Number of students in 2020
1	HACT011/12	98
2	HNS011/2	313
3	HENA011	+ - 680
4	HENA021	170
5	HENA031	68
6	HFEB000	521
7	HENA011	600
8	HNS011	285
9	HENA011/012	800
10	HENF080	20

**Table 1.3: 2020 modules and students' numbers**

Table 3 indicates the respondents' responses to question 5 and 6. Data indicates that 3 respondents identified HENA011 as the module that had the highest number of students, followed by HFEB with 521 students, HNS011/2 with 285 and 313, respectively, HENA021 with 170, HACT011/12 With 98, HENA031 with 68 and HENF080 with 20. The data also reveals some discrepancies in the number of students for two modules, HNS011/012 and HENA011. While two lecturers taught one cohort of HNS011 students, while 3 respondents



taught the HENA011/012 cohort in 2020, they differed in terms of student numbers with 285 and 313 for HNS01 while HENA011/012 had 600, +680 and 800 total students, respectively. These discrepancies indicate that lecturers may at time not have access to accurate statistics of the registered students of the modules they teach.

- Theme 3: Assessment Prior and During Covid-19

Theme 3 comprised of questions 6 to 7 stated below:

Question 6: Which modes of assessment did you use prior the onset of Covid-19? Please list the main five (5) modes. If you were not employed by UL at this period, please leave this question unanswered.

Question 7: Which modes of e-assessment did you use during 2020 after the university closed due to Covid-19? Write any 4.

The following table, Table 1.4 illustrates the modes of assessment prior and during Covid-19 and the number of respondents that mentioned them.

Modes of Assessment Prior Covid-19	Number of respondents using them	Modes of Assessment During Covid-19 in 2020	Number of respondents using them
Theory, practical research	2	Theory, practical research	1
Multiple Choice questions	2	Essay	2
Debates	1	Short answer questions	1
Essay	2	Matching	1
Short answer questions	1	True or false	1
Presentations	4	Online Tests	6
Tests	5	Online Assignment	5
Assignments	3	Online quizzes	2
Quizzes	1	Online presentations	2
Discussions	1	Class activities	2
Group assignments	1	Examination	2
Examination	2	Group project	1
Class activities	1	Blackboard Collaborate	1
Group project	1	WhatsApp	2
Case studies	1	E-mails	2
Mainly face-face teaching through slides	1	SMS	1

**Table 1.4: Modes of assessment prior and during Covid-19 and the number of respondents that mentioned them.**

Table 1.4 indicates that the most common modes of assessment prior the onset of Covid-19 were tests, presentations and assignments, used by 5, (50%) 4, (40%) 3, (30%) respondents, respectively. The second common modes of assessment, used by 2 (20%) of participants were theory and practical, multiple choice and examinations followed by debates, short answer questions, quizzes, discussions, group assignments, class activities, group projects, case studies and face to face teaching through slides used by 10% of the respondents.

After the onset of Covid-19 respondents mainly used online tests (60%) and online assignments (50%). 20% used essays, online quizzes, online presentations, class activities, examinations, WhatsApp and emails whereas 10% used theory, practical and research, short answer questions, matching items, true or false questions, group projects, Blackboard collaborate and SMSes.

- Theme 4: Training on e-assessment

Theme 4 comprised of questions 8, 9 and 10 stated below:

Question 8: Did you get training in the modes of e-assessment used in question 7?

Question 9: How beneficial was the training in helping you understand and apply the e-assessment modes you used?

Question 10: If you answered Yes to the above question, please indicate the duration (in days).

In response to Question 8, 7 (70%) respondents stated that they received training on modes of e-assessment whereas 3 (30%) answered that they did not receive any training. Further, the 3 (30%) respondents who did not receive training wrote N/A (not applicable) to this question. Out of the remaining 7(70%) respondents, 1 received 5-day training while 1(10%) received a 2-day training. One (10%) left this question unanswered whereas 4 (40%) received 1-day training, respectively.

Three (30%) of participants responded 'not applicable' (N/A) this question as they received no training. Out of the remaining 7 (70%), 3(30%) found the training highly beneficial, 2 (20%) moderately beneficial and 1 (10%) found the training not beneficial. One (10%) did not answer this question. These findings are consistent Mpungose's (2020:6) study that postulates that most lecturers were not trained and those that were trained considered the training inadequate.

- Theme 5: Successes and challenges experienced with e-assessment.

Theme 5 comprised of questions 11,12 and 13 stated below:

Question 11: Which successes did you have with applying this/these modes of e-assessment? Please elaborate fully.

Question 12: Which challenges did you experience? Please elaborate fully.

Question 13: Please indicate any support, besides training, that you received during application of e-assessment during 2020

The following table, Table 1.5 illustrates the successes and challenges participants experienced with applying e-assessment in 2020.

Respondent	Successes	Challenges	Support
1	-The theoretical aspects assisted students with personal study, research as well as stating their sources. -Practical enabled students to put theories into practice	-Internet connectivity. Students lack of access to appropriate gadgets and data. -Lack of connectivity and power.	None
2	None	-Group answering -Problems of spelling -The use of diacritic marks.	N/A
3	-Blackboard Collaborate Ultra enabled reach of many students	-Need for quick adjustment to online modes of teaching. -Connectivity problems.	-The ICT gave the needed support.
4	-Convenient assessing in my own space -Prompt feedback -Self-directed learning -Enhanced teamwork and collaboration with colleagues	-Irregularities that required protocols and that delayed processes. -Delays in reporting processes caused by colleagues' delay in responding to emails. -Inability to apply some electronic functions, especially teaching modes on Blackboard.	Unanswered
5	-Using, with elements of difficulty, the online assessment in the form of LMS called Blackboard Ultra Collaborate	-Students not conversant with IT -Internet connection -Lack or absence of gadgets among students -Connectivity in some areas where students reside.	-Blackboard training although not enough.
6	-Both formative and summative assessments were administered online with more than 80% of the students assessed in 2020.	-Poor network coverage was the biggest challenge for the students and myself.	Unanswered
7	-The setting and uploading of assessments -Having marks automatically generated.	-Connectivity challenges causing students' failure to complete the assessments,	Unanswered

		-Duplicating notes in their assessments.	
8	-ICT helped ensure assessment of all students' competencies.	Students' writing as groups -Poor network causing late submission of tasks.	ICT staff helped with uploading of assessment and assisted with short training on Blackboard use.
9	-Being able to access students at my/their convenience.	-Intermittent disconnection of network. -Data shortage -Laptops packing up	ICT assistance with uploading of materials on Blackboard.
10	100%	- Connectivity and data student challenges.	- Unanswered

**Table 1.5 : The successes and challenges participants experienced with applying e-assessment in 2020.**

Table 1.5 indicate that 7 (70%) participants stated that the ability to assess students through Blackboard was their main strengths. Only 1(10%) mentioned the theoretical aspects which assisted students with personal study, research and ability to state their sources as well as practical work which enabled students to put theories into practice as strengths identified. One (10%) participant stated that they did not perceive any strength with using e-assessment while 1(10%) did not respond to this question. Further, 8 (80%) participants mentioned they had challenges related with remote online assessment, predominantly the lack of connectivity, followed by data and electricity. The identification of connectivity challenges as the major hurdle to online teaching and learning is supported by studies such as (See, Matarirano *et al*, 2021; Nkonki and Ntlabathi, 2016; Dlamini and Nkambule, 2019 and Owusu-Fordjour *et al* 2020.)

One respondent (10%) cited as main challenges the irregularities that required protocols and that delayed processes and delays in reporting processes caused by colleagues' delay in responding to emails as well as inability to apply some electronic functions, especially teaching modes on Blackboard. One (10%) respondent cited challenges with group answering by students, spelling and the use of diacritic marks. Lastly, with regard to any support, other than training that respondents received during application of e-assessment during 2020, 3 (30%) mentioned that the received support from ICT, 1 (10%) respondent still mentioned Blackboard Training, 4(40%) left this question unanswered, 1(10%) wrote N/A 'not applicable' while 1 (10%) indicated that they received no support.

- Theme 6: Views about assessment at universities in the future

Theme 6 comprised of questions 14 and 15 stated below:

Question14: Has the application of e-assessment changed your outlook on the manner in which assessment can be carried out at universities? Yes/No.

Question 15: Please elaborate on your answer in question 14.

Since question 15 was a follow-up on the response respondents gave for Question 14, the findings on the responses to the two questions will be given as a unit. Three (30%) respondents opined that e-assessment has not changed their outlook on the manner in which assessment can be carried out. Two of these respondents further wrote N/A 'Not applicable' to the subsequent question whereas the third opined that the university does not have enough IT Support and infrastructure that is ready to enable e-assessment.

On the other hand, 8 (80%) responded 'YES' to the question on whether their outlook on assessment at universities had changed with various elaborative reasons. The reasons included the need to use other languages besides English in assessment, that online teaching is best provided when there is adequate mastery of e-assessment by both students and lecturers, the fact that e-assessment is convenient, effective and efficient when one has a strong network coverage, that it is useful in quicker assessment and generation of marks, that it is effective provided strategies that can limit copying can be implemented, that E-learning is a norm today and should be prioritised by our institutions and lastly, that e-assessment has revolutionised assessment in Higher Education although students and lecturers need training, data and stable connectivity to function optimally.

## **6. Discussion**

1.The findings indicate that lecturers' assessment practices were slightly altered by the advent of Covid-19 as prior its onset a myriad of tasks used for assessment were employed, however, what is striking is that from the advent of Covid-19 which made online teaching compulsory, the assessment paradigm leaned significantly towards online assessment, especially online tests and assignments.

The different responses that respondents gave to the question on modes of assessment prior and during Covid-19 indicate a varied understanding of the concept modes of assessment. While some respondents responded with examples of assessment such as e-assessment, group assessment and others, other respondent gave the types of questions such as multiple-choice, short answers and true and false questions.

This leads to the question about the level of lecturers' knowledge and understanding of assessment as a strategy to measure knowledge. This is in spite of the respondents' assertion that a significant number, (70%), received training on assessment, which could be explained by the subsequent responses that the training was just moderately beneficial.

A significant number, (70%) of respondents considered their ability to assess students through Blackboard as their main strengths. However, while 30 % mentioned other challenges relating to student responding in groups and exam irregularities as well as lack of teamwork among colleagues. Further, 70% cited lack of connectivity, students inadequate access to data

and electricity as the main challenges that affected students' performance in the tests, assignments and oral presentations.

With regard to support received while implementing e-assessment, 50% cited that they received support from ICT and through Blackboard training. This response was contrary to the response to the question that asked respondents to mention other means of support besides training that they had received.

Lastly, it would seem that the advent of Covid-19 and the ensuing shift to online teaching and e-assessment has significantly impacted on the respondents' outlook has on assessment at universities. Various reasons were given for this stance, including the need to use other languages besides English in assessment and that online teaching and e-assessment should be considered as the preferred forward route for students and lecturers and lastly that e-assessment is a quick, convenient, effective and efficient means of assessment which is becoming a norm for Higher Education institutions where extenuating circumstances are adequately addressed.

## 7. Recommendations

Mediating E-learning assessment can be made a reality when the following recommendations can be met and the challenges abated:

- Adequate training of lecturers on assessment in general, as well as particular e-assessment should address the lack of knowledge about assessment strategies, tools and tasks.
- The challenges that form part of e-learning and e-assessment such as manipulating learning systems such as Blackboard will be instrumental in sparking lecturers interest in teaching and assessing through these systems.
- Adequate and ongoing support by ICT need to take to assist lecturers tackle any challenges they may encounter.
- Ensuring adequate network coverage, adequate data and electricity supply will help deal with challenges commonly associated with online learning and assessment.

## 8. Conclusion

In conclusion, generally, this study found that the lecturers have embraced the teaching and assessment shift from face to face to online teaching and e-assessment. This study has successfully illuminated the issue that lot needs to take place to adequately address challenges that come with e-learning and that some training needs to occur to deal with any misconceptions with e-learning an assessment in general. Lastly, it is conclude that the institutions of higher learning need to make adequate financial, human and material investments if e-learning and e-assessment endeavours are to be made a reality.

## References

1. Al-Hunaiyyan, A., Al-Sharhan, S. and Alhajri, R. (2017) A New Mobile Learning Model in the Context of Smart Classroom Environment: A Holistic Approach. *iJIM: Volume 11 (3)* Pp 39-56
2. Alokuk, J. (2018) The Effectiveness of Blackboard System, Uses and Limitations in Information Management. *Intelligent Information Management*, Volume 10 (6), 133-149.
3. Asante, M.K. 1988. *Afrocentricity*. Trenton: Africa World Press.

4. Buckingham, A. & Saunders, P. 2004. *The survey methods workbook*. Cambridge: Polity Press.
5. Braun, V. & Clarke, V. 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3, 77-101.
6. Comas-Quinn, A. (2011). Learning to teach online or learning to become an online teacher: An exploration of teachers' experiences in a blended learning course. *ReCALL Journal*, 23(3), 218-232.
7. Compton, L. K. L. (2009). Preparing language teachers to teach language online: A look at skills, roles, and responsibilities. *Computer Assisted Language Learning*, 22(1), 73-99.
8. Davids, N. (2021) COVID-19: Undoing our "Normal" to find our humanity. *South African Journal of Higher Education*: Volume 35 (1) Pp 178–191
9. De Vos, AS. 1998. Research at grass roots. Pretoria: Van Schaik.
10. Dlamini R, Nkambule F (2019) Information and communication technologies' pedagogical affordances in education. *J Encyclopedia Educ Inform Techno*(l)1–14
11. *Education (AACE)*.
12. Ertemer, P.A., Ottenbreit-Leftwich, A.T., Sadik, O., Sendurur, E., & Sendurur, P. (2012) Teacher beliefs and technology integration practices: A critical relationship. *International Journal of Computers and Education*. Volume 59, Pp 423-435
13. Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (2020).
14. Ferdig, R.E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R. & Mouza, C. (2020). *Teaching, Technology, and Teacher Education during the COVID-19 Pandemic: Stories from the Field*. Association for the Advancement of Computing in Education (AACE). Accessed on July 7, 2021 at 14h45. Available
15. Fosnot, C.(Ed.). 1996. *Constructivism: Theory perspectives and practice*. New York: Teachers College Press.
16. Fraser, B.J. & Walberg, H.J. 1981. Psychosocial learning environment in science classrooms: A review of research. *Studies in Science Education*, 8, 67-92.
17. from the Field. Waynesville, NC, USA: Association for the Advancement of Computing in
18. from <https://www.learntechlib.org/p/216903/>.
19. Gonzalez, T., de la Rubia, M.A., Hincz, K.P., Comas-Lopez, M., Subirats, L., Fort., Sacha, G.M., (2020) Influence of COVID-19 confinement on students' performance in higher education. *PLOS ONE Journal*, Vol 15, No 10, Pp 1-23
20. Hannafin, M., Oliver, K., Hill, J. R., Glazer, E., & Sharma, P. (2003). Cognitive and learning factors in web-based distance learning environments. In M. G. Moore & W. G. Anderson (Eds.), *Handbook of distance education* (pp. 245-260). Mahwah, NJ: Erlbaum.
21. Hauck, M., & Stickler, U. (2006). What does it take to teach online? *CALICO Journal*, 23(3), 463-475.
22. Hermans, R., Tondeur, J., van Braak, J., & Valcke, M. (2008) The impact of Primary School Teacher's Educational Beliefs on the Classroom use of Computers. *International Journal of Computers and Education*. Volume 51, 1499-1509
23. Hussein-Farraj, R., Barak, M., & Dori, Y. J. (2012). Lifelong learning at the Technion: graduate students' perceptions of and experiences in distance learning. *Interdisciplinary Journal of E-Learning and Learning Objects*, 8, 115–135.
24. Hyman, M. & Sierra, J.J. (2016) Open- versus Close-Ended Survey Questions. *Business Outlook*. 14, 2.
25. Huysamen, G.K. 1994. *Methodology for the social and behavioural sciences*. Johannesburg: Southern Book Publishers.
26. Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29).
27. Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29). New York: Taylor & Francis. Published with acknowledgment of federal support.
28. Kaden, U. (2020) COVID-19 School Closure-Related Changes to the Professional Life of a K–12 Teacher *Journal of Education Science*. Volume 10 (6) Pp165-178

29. Kaden, U. (2020). COVID-19 School Closure-Related Changes to the Professional Life of a K–12 Teacher. *Education Sciences*, 10(6), 165.
30. Krumbein, W. E., & Dyer, B. D. (1985). *Weathering and biology, a multi-faceted problem*. In J.I Drever (Ed.), *The planet is alive* (Pp 143-160). Dordrecht Reidel Publishing
31. Le Grange, L. (2020) Could the COVID-19 Pandemic Accelerate the uberfication of the University? *South African Journal of Higher Education*. Volume 34 (4) Pp 1-10
32. Leedy, P.D. 1993. *Practical research: Planning and design*. 5<sup>th</sup> edition. New York: Macmillan Publishing Company.
33. Liu C., and Long, F. 2014 The discussion of traditional teaching and multimedia teaching approach in college English teaching. Paper presented at the 2014 International Conference on Management, Education and Social Science (ICMESS 2014)
34. Machika, P. (2021) Implementing an LMS in a low maturity context: Towards an effective model. In Pitso, T. (Ed) *Contextualised Critical Reflections on Academic Development Practices: Towards professional learning*. African Sun Media publishers, 73-90
35. Madadzhe, R.N (2019) Using African languages at universities in South Africa: The struggle Continues. *Applied Linguistics*. Volume 58 Pp 205-218
36. Mandewo, L., Hlubi, S., & Kekana, T. (2021) SI-based Tutorial and Mentoring Programme. In Pitso, T. (Ed) *Contextualised Critical Reflections on Academic Development Practices: Towards professional learning*. African Sun Media publishers, 127-143
37. Matarirano, O., Jere, N., Sibanda, H. & Panicker, M. (2021). Antecedents of Blackboard Adoption by Lecturers at a South African Higher Education Institution. *International Journal of Emerging Technologies in Learning*, 16(1), 60-79.
38. Matee, B. (2009) *The design of continuous professional development in technikons, with special reference to the teaching function* (Master's dissertation, University of South Africa, Pretoria, South Africa). Available from [http://hdl.handle.net/10500/2974].
39. Mncube, V., Mutongoza, B. H., & Olawale, E. (2021). Managing higher education institutions in the context of COVID-19 stringency: Experiences of stakeholders at a rural South African university. *Perspectives in Education*, 39(1), 390-409.
40. Moonsamy, D., and Govender, I. (2018). Use of Blackboard Learning Management System: An Empirical Study of Staff Behavior at a South African University. *Eurasia Journal of Mathematics, Science and Technology Education*, 14(7), pp. 3069-3082.
41. Motala, S & Menon, K. (2020) In search of the 'new normal': Reflections on teaching and learning during Covid-19 in a South African university. *Southern African Review of Education*, 26(1): 80–99.
42. Mpungose, C.B. 2020. Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic. *Humanit Soc Sci Commun* 7, 113 (2020). Available on <https://doi.org/10.1057/s41599-020-00603-x> Accessed on the 05 July 2021
43. Mueller, J., Wood, E., Willoughby, T., Ross, C., & Specht, J. (2008) Identifying discriminating variables between teachers who fully integrate computers and teachers with limited integration. *International Journal of Computers and Education*. Volume 51, Pp 1523-1537
44. Naidoo, P. & Cartwright, D. (2020): Where to from Here? Contemplating the Impact of COVID-19 on South African Students and Student Counseling Services in Higher Education, *Journal of College Student Psychotherapy*: Available on: <https://doi.org/10.1080/87568225.2020.1842279> . Accessed on the 05 July 2021
45. <https://doi.org/10.1080/87568225.2020.1842279> . Accessed on the 05 July 2021
46. Neuman, W.L. 1997. *Social research methods: Qualitative and quantitative approaches*. 3rd edition. Boston, MA: Allyn & Bacon.
47. Nkonki, V. and Ntlabathi, S. 2016. Teaching and Learning Innovations on Blackboard: What Form and Function? In ICEL2016-Proceedings of the 11th International Conference on e- Learning. (Ed.) Idrus and Zainuddin .This conference was hosted by Universiti Sains Islam Malaysia
48. Okereke M, Williams AE, Emmanuella NC, Ashinedu NU, Mairaj MW. Covid-19: Challenges affecting the uptake of e-learning in Pharmacy education in Africa. *Pan Afr Med J*. 2020;35(Supp 2):1–3. doi:10.11604/pamj.supp.2020.35.2.23910



49. Olsson, T. (2021) Foreword. In Pitso, T. (Ed) Contextualised Critical Reflections on Academic Development Practices: Towards professional learning. African Sun Media publishers, v-vi
50. Omodan, B.I. The vindication of decoloniality and the reality of COVID-19 as an emergency of unknown in rural universities. *Int. J. Sociol. Educ.* 2020. [CrossRef]
51. 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*
52. Perry, R. S., & Kolb, V. M. (2003). Darwin to Mars. *Geophysical Research Abstracts*, 5, 07353.
53. Perry, R. S., & Kolb, V. M. (2004). On the applicability of Darwinian principles to chemical evolution that led to life. *International Journal of Astrobiology*, 3( 1), 1-9.
54. Sikhwari, T.D. (2007) The relationship between affective factors and academic achievement of students at the University of Venda. *The South African Journal of Higher Education*. Volume 21 (3) Pp 520-536
55. Silverman, D. 2000. *Doing qualitative research: A practical handbook*. London: Sage.
56. Soni, V.D. (2020). Challenges and Solution for Artificial Intelligence in Cyber security of the USA (June 10, 2020). Available at SSRN: <https://ssrn.com/abstract=3624487> or <http://dx.doi.org/10.2139/ssrn.3624487>. Accessed on 30 June 2021 at 9h30.
57. Tawafak, R., ALFarsi, G., Jabbar, J., Iqbal Malik, S., Mathew, R., AlSidiri, A., Shakir, M. & Romli, A. (2021). *Impact of Technologies During COVID-19 Pandemic for Improving Behavior Intention to Use E-learning*. International Association of Online Engineering. Retrieved June 29, 2021 from <https://www.learntechlib.org/p/218695/>.
58. Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories
59. UNESCO (2020) Methodological Note: Tracking Covid-19 Caused School and University Closures [online]. Available at [https://en.unesco.org/sites/default/files/methodological\\_note\\_-\\_unesco\\_map\\_on\\_covid-19\\_caused\\_school\\_and\\_university\\_closures\\_final.pdf](https://en.unesco.org/sites/default/files/methodological_note_-_unesco_map_on_covid-19_caused_school_and_university_closures_final.pdf). Accessed 22 June 2020].
60. Uziak, J.M., Oladiran, T., Lorencowicz, E., and Becker, K., 2018. Students' and Instructor's Perspective on the use of Blackboard Platform for Delivering an Engineering Course. *The Electronic Journal of e-Learning* Volume 16(1), pp 1-15
61. Winegardener, K.E. 2001. *The case study of scholarly research*. The Graduate School of America. Available from: [www.tgsa.edu/online/cybrary/casel.html](http://www.tgsa.edu/online/cybrary/casel.html) Accessed on the 19<sup>th</sup> December 2012 at 13h13.
62. Wood, E., Mueller, J., Willoughby, T., Specht, J., & DeYoung, T. (2005). Teachers' perceptions: Barriers and supports to using technology in the classroom. *Education, Communication, & Information*, 5, 183–206.