



The Assessment in Sustainable Remote Teaching and Learning Environments During Emergency Situations

Makeresemese Rosy Mahlomaholo^{*a} & Sechaba Geoffrey Mahlomaholo^b

* Corresponding author

E-mail: QhosolaM@ukzn.ac.za

a. University of Kwazulu-Natal, South Africa

b. University of Mpumalanga, South Africa

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ABSTRACT

This paper explores how quality assessment is maintained in the COVID-19 protocols mandatory remote teaching and learning higher education environments. The argument being pursued is that, despite the pandemic, the e-assessment ensures the sustainability of quality thereof even in remote teaching and learning environments. We compare e-assessments in these environments to how conventional assessments happen in in-person contexts. In this comparison, we unearth several challenges afflicting the conventional in-person assessments. These range from ill-prepared lecturers sometimes, who do not take time to formulate meaningful assessment tasks, to students who demand special treatment just because they are physically present and are able to 'bully' lecturers. In the COVID-19 mandatory remote e-assessments teaching and learning environments, despite the attended challenges of costs to install the Learning Management System and train academics, there seem to be many more positive outcomes. These include lecturers' ability to ensure that all students enrolled in the module read the materials provided, spend enough time doing so, and engage meaningfully with the learning subject content. That feedback is provided almost immediately to ensure quality in remote teaching and learning environments. Design research principles that serve as the overarching theoretical framework for this paper are used to identify the challenges to e-assessments, the responses to these challenges, the contextual factors that make the responses effective, those that pose threats thereto and how they are resolved and circumvented.

KEYWORDS

Assessment; e-assessment; remote teaching and learning; COVID-19; pandemic; sustainable learning environments.

BACKGROUND

This paper explores how quality assessment of learning is conducted in sustainable remote teaching and learning environments during emergency situations. Quality assessment tends to deepen and expand learning (Jones & Sharma, 2020). It is assessment that ensures that competencies required for the Fourth Industrial Revolution - 4C's are acquired by students through their learning experiences, especially in the context of the COVID-19 pandemic. The 4Cs refer to *collaboration, compassion, critical thinking and creativity*. These competencies are regarded as unique attributes necessary for the students to acquire and cultivate in order for them to thrive in the era of 4IR (Tǎlu, 2019). However, quality assessment does not happen in isolation, especially now that the world faces the Coronavirus (COVID-19) pandemic. It also requires social distancing that led to the country's lockdown, which happened in many countries worldwide, including South Africa.

The above has driven the institutions of higher learning, in particular, to revert to the assessments that should happen remotely. These require technologically facilitated environments through the various use of Learning Management Systems (LMS). This paper focuses on Moodle (Koh & Kan, 2020). Even though assessment is said to be conducted remotely, it is still essential that it is of good quality and should also take place in a manner that promotes sustainability of the learning environments advocated for in the policies for quality assurance in many institutions (Camilleri, 2021). Sustainable Learning Environments (SuLE) are those contexts that promote the acquisition of the 4Cs. These are environments that are aligned with the educational legislative imperatives of the country stipulated in the South African Qualification Authority (SAQA) documentation. SAQA, through its National Qualification Framework (NQF), sets out the descriptors as the minimum requirements of competencies that should be attained at different levels of study (Ramrathan, 2020). Therefore, the quality of assessment in remote learning environments is determined by the extent to which they are sustainable.

The attention given to remote assessments exposes the limitations of the traditional face-to-face ones. There seems to be a lack of well-defined methods to assess how the student interacts with the subject content in the face-to-face environments. For example, a lecturer cannot track whether the majority of the students actually open their books, even once. The lecturers cannot determine whether the students read or use their readings to compile their assignments or assessment tasks (Khogali & Arabia, 2021). In remote learning environments, tracking is done, including even on the number of students who accessed the LMS, and for how long. Another issue with face-to-face assessment is lecturers' proclivity for reproducing and using old and outdated previous question papers for tests, assignments, and examinations (Altbach et al., 2019), which frequently occurs as a result of lecturers' proclivity for waiting until the last minute to set the question papers. In many instances, these are finalised just before the due dates, sometimes at the end of the quarter or the semester or the end of the year. So, the limited time afforded to the planning of assessments results in poor quality of assessment in

face-to-face situations (Altbach et al., 2019). Another challenge in face-to-face assessment environments is time management, which may lead to a backlog in assessment task administration due to unreliable electricity, a miscalculation of the number of assessment papers needed and to be photocopied, or lengthy proofreading of the papers, and, in some cases, poor printing where graphs or pictures copied are not clear to students (Cahapay, 2020). The other popular challenge of the face-to-face assessment is plagiarism. Students are, in many instances, 'caught' with the answers they have prepared prior to the examination/test by typically following the guides given by the lecturer in good faith (Levine & Pazdernik, 2018). The lack of rapid and constructive feedback is another challenge. Many lecturers take some days to mark, and when they do, they do not provide constructive feedback to the students; only grading tends to be provided in such cases (McCarthy, 2017). The face-to-face assessment is usually given through printed papers, limiting the use of multimodal resources like videos and thus limiting the link between the real-life experience and the assessed information.

Many institutions of higher learning have come up with various strategies to address the urgent call to move to the remote assessment mode as the students were sent back to their homes due to the pandemic and the need for social distancing (Cahapay, 2020; Dube et al., 2022). However, these are still not perfect. Many institutions in South Africa are in positive talks with the data service providers, and the students may be getting zero tariffs when using the data to access the LMS like Moodle (Butler-Henderson et al., 2020). However, this may still be a problem for students who live in deep rural areas (remote areas) where there is an inconsistent connection to electricity and the internet. Some students studying in South African Higher Education institutions from foreign countries sometimes experience connectivity challenges when they do not use local internet service providers that partner with institutions for zero-rating data usage in South Africa (Butler-Henderson et al., 2020).

Furthermore, many institutions are urgently rolling out staff training to use the LMS. However, if the issue of resistance to the use of technology to teach and learn is not well attended to at the same time, the training may be futile (Deneen & Boud, 2014). The universities have specific time frames for assessment. If these are not well planned, this can be an obstacle to students who reside in other parts of the world where there are different time zones. It should be noted that, in a country like South Africa, most students are provided with financial aid in the form of the National Student Financial Aid Scheme (NSFAS), which has an allocation for students to buy laptops or tablets. Students may use the allocated funds to purchase other things if this support is not well monitored. Current research on this matter shows that many students now claim they have no devices to access the LMS despite the allocation being made (Makombe, 2021).

Some of the biggest threats to effective remote e-assessment are financial constraints, the cost of ensuring that the LMS works optimally, and the training of staff that sometimes requires enlisting external expertise. On the other hand, the institution must ensure that the staff members can work from home, thus providing data to them (Ali, 2020). Students also

require training in the use of the LMS due to them not being in the exact location because the lockdown regulations demand exceptional expertise to provide online training. The additional load to the lecturers to prepare online material, and by extension, e-assessment and its instruments present other challenges.

Quality assessment is said to be sustainable if it enables students to be creative and critical thinkers, implying that a student can demonstrate the ability to integrate knowledge, evaluate types of knowledge, and explain typical within the area of study or practice (SAQA, 2012). So, when the lecturer uses multimodal resources, it inspires students' interest and inquisitiveness. These resources encourage students to delve beyond simple answers and investigate the reasons behind the solution; this is how problem-solving abilities, which are crucial for creativity and critical thinking, are developed (Ali, 2020; Brits, 2018). In line with the above, the multimodal assessment approach provides real-life situations that require some judgement to be applied to novel situations. These force learners to think and integrate their existing knowledge in decision-making. Through such assessments, they are required to evaluate the alternative solutions to gather enough evidence to motivate their final decision (Knyviene, 2014).

Furthermore, quality assessment is said to be sustainable if it renders students compassionate and collaborative (Ali, 2020; Brits, 2018; Ramrathan, 2020). When the students are provided with prompt feedback, they tend to be able to identify their gaps and make sense of their gradings, thus motivating them for their next challenge (Brits, 2018; Ramrathan, 2020). Most of them, when afforded the opportunity for peer assessment, they tend to learn about discipline, collaboration and to be compassionate towards each other because they know that if you unfairly mark another student down today, tomorrow she/he might be your assessor and might do the same to you too. The prompt feedback made possible by LMS, whether from peers or the lecturers, is crucial because it gives them a sense of control and motivation (Deneen & Boud, 2014; Makombe, 2021). These tend to enable them to realise their responsibility to reflect on the feedback to prepare for subsequent tasks.

Problem Statement

The Fourth Industrial Revolution (4IR) discussion has been prominent lately in many institutions' platforms. However, many institutions were still not even closer to optimising their online teaching and learning capabilities. The digitisation of their environments (4IR) seemed distant until the world was attacked by the COVID-19 pandemic that forced the implementation of lockdown strategies to enhance social distancing, among others. The pandemic led many institutions to promptly formulate various strategies to ensure that the learning process continued remotely, in particular quality assessment. This paper thus aims to explore how quality assessment is maintained in the sustainable remote teaching and learning environment.

Research Question

How can we achieve sustainable quality assessment in remote teaching and learning environments?

Research Objectives

The research objectives are to:

- explore what the challenges are concerning ensuring remote quality assessment,
- investigate what solutions could be possible to these,
- suggest improvements on the successes that have been achieved so far.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this paper, we use the principles of design research to enable us to make sense of the aim and objectives of the study as explained above. Design research came into the sharp focus of the education researchers mainly around 1986 following the publication of David Perkins' important book titled *Knowledge as Design* (Perkins, 2013). Many more publications came to the fore, mainly from the Massachusetts Institute of Technology's (MIT) Design thinking projects (Bjögvinsson et al., 2012). This kind of research emphasises investigating the design of strategies, models, and existing frameworks and allows the author to improve where possible.

This process abides by the following standard operating procedures: situational analysis, where needs are identified originating from local to the international. Then looking at the new ways of researching while searching for the best and promising practices to inform the sustainable quality assessment approach(es) possible (Perkins, 2013). However, it is essential to understand the condition of the strategies identified as successful and meaningful in the provision of remote quality assessment (Bjögvinsson et al., 2012; Perkins, 2013). In other words, the best strategies are not just plugged out of their place of origin and then inserted in the new context without understanding why and how they were successful in the first place (Bjögvinsson et al., 2012). Therefore, the principles of design research provide such an opportunity through making sense of theory and practices. However, such principles also caution the researcher that finding the best sustainable remote assessment approach would not come without possible threats and risks (Bjögvinsson et al., 2012; Perkins, 2013). Thus, the researcher should anticipate such and build mechanisms to circumvent them. Finally, the design research tends to assist the researcher if he/she reaches the goal of producing the evidence that indeed the chosen approach that is sustainable truly works and is effectively sufficient in responding to the challenges of remote assessment by rendering it of a good quality (Perkins, 2013).

The world has drastically changed in the wake of a Coronavirus responsible for COVID-19, leaving institutions of higher learning to prepone some of their planned remote teaching and learning processes (Watermeyer et al., 2021). However, research nationally and internationally shows that the challenges of remote assessment across the world's universities are similar and only differ in a few respects in terms of the extent and degree (Watermeyer et al., 2021). The main challenge seems to be the sustainable remote – technologically facilitated

environment. On the other hand, the institution carries the financial burden to install or update the LMS (Watermeyer et al., 2021). The above gives rise to the challenge of fair and quality assessment in real-time. For example, when the assessor is located in his/her office or any other remote location at a particular time, and the students are at their different geographical areas but yet are only able to be assessed within a specified period (Ferrell & Gray 2013; Watermeyer et al., 2021). It is firstly the problem because of the possibility of plagiarism on the side of the students, in a sense that the students may enlist the help of other people to assist them. The other problem is the lack of control by the assessor in terms of the quality of the gadget a student is using and how reliable it will be during the period of the evaluation (Ferrell & Gray 2013). This issue is a significant problem at the institutions based in the rural areas and predominantly serve the marginalised community of students. Poverty leads students to see the opportunity to secure food and survival for their families rather than securing quality or gadgets with the money they may have. Thus, when students are assessed, they have to borrow or depend on the public available facility for that activity; this, in turn, has dire consequences to students' distributive justice, fairness, and quality of assessment. The other challenge is training both the staff and the students to maximise their benefits in using the LMS (Ferrell & Gray, 2013; Watermeyer et al., 2021). The biggest problem here is the resilience on the side of the staff and students accordingly. On the side, if the staff is well-motivated, the issue of providing prompt feedback to students can be dealt with, and students, in turn, may be motivated to be at the centre of their learning with the necessary control thereof.

Many institutions continue to use different LMS's including Moodle, to try and bring solutions to the many challenges, including the ones mentioned above. Moodle functionality allows institutions to conduct diagnostic, formative (teacher assessment, peer assessment and self-assessment) and summative assessments, grade learners' and report performance, and provide feedback. The e-assessment process involves "assessment scheduling submission of assignment; submission of assignments; tracking of submissions, extension requests and approvals; academic integrity; academic misconduct processes; examinations; marks recording; moderation and external examining" (Ferrell & Gray 2013, p.78).

Thus, an integrated e-assessment system facilitates e-Submission, e-Marking, e-Grading, e-Feedback and e-Reports. However, through Moodle, those tasks cannot be automatically e-marked and would require students to submit them via Moodle but will then be marked by tutors/ lecturers. These include questions such as essays, short narrative answers and problem-solving exercises. These questions are generally used to assess the higher-order cognitive objectives such as analysis, synthesis, judgment, comprehension, and application (Scully, 2017); this is done to accommodate different cognitive levels. In South Africa, this is clearly documented in the SAQA's NQF Level Descriptors. However, even though the use of Moodle may sound fascinating and easy to use, many institutions are still grappling to take full advantage of the Moodle package, as discussed above (Ferrell & Gray 2013; Watermeyer et al., 2021). Among other factors mentioned before is the financial burden to all parties involved the

limited period of thorough training because now staff and students are required to maximise Moodle use due to pandemic COVID-19. The fear of compromising distributive justice, fairness and quality of assessment is another critical factor.

The above notwithstanding, the institutions of higher learning more than ever are expected to take the lead as they are producers of knowledge, and it is indeed through assessments that they can certainly tell if students are learning (Ferrell & Gray 2013; Watermeyer et al., 2021). Investment in the LMS is thus a priority. Training both staff and students is vital to reap the fruits of remote assessment. The process of designing and planning assessment activities is given attention to engage the students cognitively (Ferrell & Gray 2013; Watermeyer et al., 2021). These are important to meet the demands of the global knowledge economy and add to the 4IR labour pool of students who are likely to possess the 4C's.

The preceding paragraph explored the conditions conducive to the sustainable remote assessment approach in teaching and learning. However, one must consider the possible threats and risk factors that might prevent the possible strategy or approach that an institution may want to follow. Thus, it is imperative to develop ways to circumvent the threats that may arise. Lack of resilience on the part of staff and students can obstruct the achievement of long-term remote assessment, which means that leadership should emphasise the importance of a shared vision through various training because the reality of a shared vision entails shared planning, decision-making, and power. The investment risk (finance) at many institutions that are hardly surviving with little or no reserves is the issue as a more financial burden may pose a severe threat. It is, however, noteworthy that in the wake of the pandemic, many governments, Non-Governmental organisations (NGO) and World Health Organisation (WHO), to mention but a few, have made more resources available for those in need (National Treasury, 2021). Many institutions have acknowledged the use of zero-rating data offered by many service providers lately.

METHODS

We conducted in-depth desktop research mounted on critical discourse analysis (CDA) focusing on answering the research question (Van Dijk, 2015). The relevant documents were analysed to gain insight into the remote quality assessment and the possibility of using it to create sustainable learning environments. Interviews were conducted with sixteen (16) students from the two universities in South Africa, nine (9) of whom were female in their third year in the BEd programme. In this group there were also 7 males at the same level and similar academic programmes. There were six lecturers, three females and three males who have been teaching at these two institutions respectively. Their average experience in higher education was seven years of teaching and researching in higher education. All the above agreed to talk to us after they wrote emails confirming that they were aware of why we were asking to talk to them. They also confirmed that they were informed that their identities would be kept anonymous and that they could drop out of the project without any negative consequences. Their respective universities they come from are located at the central part of South Africa, one in the rural and

the other in the more peri urban setting. The rural university was mainly residential with a total population of 23 000 students while the other had a student population of around 32 000. The interviews were conducted on the phone and on a one-on-one basis. Only one interview per participant was conducted and each lasted about thirty minutes covering many aspects of remote e-assessment. We assured them that their data would remain anonymous to the extent that even the universities they enrolled or worked at would not be identified in the research paper. We adhered to highest standard of research ethics where we assured and ensured that there would be no harm to any of the participants in whatever manner possible. We then identified themes from the literature for the analysis and used them as subheadings. Furthermore, there is an opening paragraph under each subsection, followed by an excerpt from the literature, followed by the paper's five objectives, which serve as the guiding concept throughout the work.

Four illustrative materials are presented below as bases for analysis. The study was conducted mainly on materials available in the public domain that did not require permission to use. We adhered to high research ethical standards, and these guided our analysis. CDA enabled the study to use the texts gleaned from the mentioned sources to go deeper to the level of the discursive practices and to understand the meaning at the social structural level (Van Dijk, 2015). The reason to analyse four illustrative and relevant articles in the study area is that analysing more would not have added any further valuable information. It is believed that the study may contribute significantly to the institutions that are converting their traditional face-to-face teaching into remote teaching and learning, especially when facing the outbreak of COVID-19 that requires a quick reaction by the universities.

FINDINGS AND DISCUSSION

A comparison and similarity between face-to-face and remote evaluation are made under the subheadings below, using the aforementioned resources.

Effectiveness of Tracing Students' Interaction with the Assessment Content

Online learning theorists are keen on implementing Learning Management Systems (LMS) or Virtual Learning Environments (VLEs). The focus is mainly on the interactions occurring in them. These generate a wide array of data that some researchers relate positively to student effort and good performance (Iglesias-Pradas et al., 2015). Researchers agree that tracking students in an LMS poses a significant challenge since their databases store a massive amount of data (Iglesias-Pradas et al., 2015). Furthermore, it is encouraged that the theoretical and empirical bases have to be established to make sense of the learning analytics occurring on LMS. In the area of the study, there are three classifications as follows: (1) agent-based interactions; (2) frequency of use-based interactions; and (3) participation mode-based interactions. There seem to be significant relations between some types of interactions and student outcomes for all three classifications. This research considers the suitability of a similar approach to study the

relationship between the interactions occurring in an LMS and the development of cross-curricular competencies - more specifically, commitment and teamwork. In addition, collaborative learning theorists argue that teamwork and commitment provide spaces for collaboration among teachers, learners and other stakeholders (Bernacki et al., 2020). The excerpt below demonstrates a lack of commitment in which an assignment was given at the eleventh hour, and the students did not work as a team due to a lack of time on their part.

The student was given an assignment that was explained repeatedly and in more than one lecture on Moodle. However, this student decided to do the opposite and now expects the Lecturer to conduct himself in an unethical manner. Below is the back-to-back emails from the student to the lecturer:

Student: Hope you are well, Mam you have already received, marked and graded the report from girl x. The only thing you have to do now is to combine the marks for the report from her and my slides as I have mentioned to you how we made our submission, and you said you will see to it when marking.

Lecturer: It doesn't work like that. I will have to re-assess them as a whole document. I will adjust the marks accordingly. Let's make a typical example. What if for each part of the assignment you got 60 and the other 60 that it means you were going to get 120/100. The point I am trying to make is that the assignment has two parts, and it should be assessed as one assignment with two sections not finding the other person claiming to submit section A while the other person submits section b when they see that they are failing.

From the above extract, it appears that the student is dictating how the lecturer should assess the task. However, it should be a case if they work as a team and submit a whole document, not individual learners submitting a section of an assignment and the other section. The other issue is that if the students were committed enough, they would have submitted their work in time, and the lecturer was going to advise on time to do one complete task as per instruction. However, they submitted late and queried the process and marks only when the marking was completed. Because of the pressure of failing, they suggested things without the thought of validity or whether it is ethical.

The Lecturer stuck by the praising "*You cannot assess what you did not teach*", which is a popular quote in many teachings and learning environments. One of ensuring that learners have indeed learned what was taught is ensuring that they indeed interact with content. However, without commitment and teamwork, the effort by one only party goes in vain without the other.

Furthermore, according to del Blanco et al. (2017), even from a remote environment, the lecturer can usually assess whether a user accessed the content; in many cases, contents LMS provide support tools for all aspects of the teaching-learning process, from course creation to student evaluation features. Furthermore, it gives a lecturer an idea by showing how much time the learner took in his/her interaction with the content. In this student's case, he only accessed

the task the day before the due date and for a limited period. Disregarding that exposure to the assessment content through the LMS enables learners to be more literate in terms of technology and reduces the risk of struggling to access more readings and other material on their own. Unlike with the face-to-face environment where they were dependent on the hard copies or sometimes depended on the readily available material from the lectures only.

Simple learning analytics data/traces (logins, number and frequency of online contributions, etc.) can be beneficial in alerting you to students who are in danger of dropping out, getting lost, etc. If an instructor is designing sequences of tasks for students to engage in (individually, in groups or teams, etc.), then that, by its nature, provides you with another window into student engagement.

As a learning analytics strategy, teachers and students can use personalised qualitative feedback as well as automatic feedback for receiving immediate responses, a variety of instruments and assessment strategies (self, peer, and group assessment), collecting data generated by the system, and informing about the learning process to support and scaffold learning at any time.

Equitable Workload for Staff Members

The extract below is from the literature regarding the workload of the lecturers:

In face-to-face teaching, the process, or series of suggested steps, that teachers can use to plan, implement and evaluate their teaching and learning process implicit in the decision-making processes used by lecturers. However, when it comes to using online learning technologies as a main or the only means of teaching, the explicit use of some type of design process is necessary. This may seem to be overloading the lectures but it seem to pay in when the process has been initiated. This is especially the case in the COVID-19 emergency situation, teachers have, almost overnight, been asked to become both designers and tutors, using tools which few have fluently mastered. (Rapanta et al., 2020, p. 925).

The nostalgia that a remote assessment cannot replace traditional face-to-face assessment seems to be something of the past as the world faces the Covid-19 pandemic. However, literature agrees that going online does not come easily, especially for the lecturers. They must cover long, detailed and extensive tasks in preparation for the assessment and design the assessments activities and their accompanying feedback and consume much time (Udugama & Perera, 2019).

In the wake of the transition to the remote assessment, research shows that it is only in the initial stage where the lecturer's workload becomes high as they must put mergers in place for the transition. However, as time goes, the load is reduced as the material is already there and requires mainly the refinement or updating post reflection of grades from the lecturer (Gamage et al., 2019). Relating evaluation to grades enables the lecturer to take proactive measures in the class, such as changing instruction, reviewing lecture materials and

assignments, providing extra resources to students, and setting up prerequisites' courses (Fernando, 2020). Automated evaluation processes used in some online assessment tools such as Moodle quizzes enable instructors to identify patterns between a student's response to a question and overall course performance using inbuilt statistical features of the platform (Gamage et al., 2019).

Furthermore, in the case of examination, it should be noted that setting up multiple-choice questions may be labour intensive and a bit time-consuming. However, the grading is instantaneous through prompt feedback. By contrast, essay-type questions are quick to set up but time-consuming to grade as they require a lecturer to mark personally (Gamage et al., 2019).

So, the load is manageable after the initial mergers are put in place in the remote assessment. Thus, as time passes, lecturers are mainly updating, refining, and modifying their assessment tasks in response to the grades, new technologies and educational design methodologies; most importantly because student learning in 4IR is a process that involves the restructuring of curriculum, assessment and reporting practices in education to reflect the achievement of higher-order learning and mastery rather than just mere accumulation of course credits.

The central part of the world is in quarantine due to the severe outbreak of this global pandemic, COVID-19. Therefore, many cities have turned into phantom cities, and its effects can be seen in schools, colleges, and universities. Betwixt all this online teaching and online learning can be termed as the panacea for the crisis. The Corona Virus has made institutions go from offline to online pedagogy, and this crisis will force institutions reluctant to change to accept modern technology. This catastrophe will show us the lucrative side of online teaching and learning. With the help of online teaching modes, we can sermonise many students at any time and in any part of the world. All institutions must scramble different options of online pedagogical approaches and try to use technology more aptly. Many universities worldwide have fully digitalised their operations, understanding the dire need of this current situation. Online learning is emerging as a *Victor Ludorum* amidst this chaos. Therefore, the quality enhancement of online teaching-learning is crucial at this stage. Online education in Chinese universities has increased exponentially since the COVID-19 outbreak. There was an overnight shift of normal classrooms into e-classrooms; educators have shifted their pedagogical approach to tackle new market conditions and adapt to the changing situation.

Plagiarism and Validity of Assessment

The extract below comes from one of the students during the interviews. She was from one of the two universities selected for this study (see the section on method). She wrote an online test and did not perform well. She claims the following in her email:

We complain about the test. Most of the answers were not correct and those answers that were marked after we wrote are not counted as part of our total

marks. There were some questions that did not appear when we attempted the quiz but appear after the answer section.

The student above claims that not all the questions she prepared for, appeared in the test and that the lecturer's answers were wrong, but that hers were correct. When using the online assessment, almost every activity is pre-planned. The lecturers would typically take his/her time to provide feedback on both the questions and memos to the assessment software so that it automatically marks the learners' work.

According to the lecturer participating in the study, the matter was investigated, and it was discovered that the student did not complete the work, the time limit had expired, and only the marks for the written responses had been assigned. So, two things might have happened either the students had personal challenges not to complete the task, or he/she might have taken the better part of his/her time trying to check answers from his reading and realised late that the time is gone and this resulted in him/her making unfounded claims. Thus, online assessment allowed the issue to be investigated and the logical facts to be understood because the learner was now desperate and wanted to use any excuse to be afforded a second chance. The subsequent paragraph looks at how face-to-face assessment versus online teaching differs, especially with the above case that needed evidence and recordings to prove the claims wrong.

The face-to-face assessment had an inherent aspect of students trying to copy or plagiarise, whether being an assignment or test. With assignments, they would copy direct without acknowledging other people's work they have used, and this was made easier by submitting hard copies. So, if the lecturer is not aware, they may get away with it. On the test issue, many were found to have brought the answers or other materials that will assist them in answering the questions, and if not found, they were able to copy and pass.

However, in the case of online assessment, a lecturer may minimise plagiarism and copying in two ways. For the assignment, the LMS has the feature that enables a lecturer to check the similarity, e.g. Turnitin, or instruct the learner to bring the report with his/her work. In terms of the test, the foremost important thing is for the lecturer to understand the settings as this will assist her/him to ensure validity and minimise plagiarism. For example, putting a time limit for your test limits time for them to refer to the readings and other material since the time is limited and they might fear not completing the test. Shuffling questions and sometimes deactivate prompt feedback for the period when the test is still being written so that those who accessed it first cannot take pictures and send them to those still to write.

Resilience and Multimodal Resources

The meeting was in the department where colleagues shared some information about the online assessment, in this particular instance, it was one lecturer's session to share his information. From the preceding paragraphs it has been mentioned that our participants were both students and lecturers and that gender biasness was minimised. The following extract comes from the one-on-one meeting with the lecturer:

Lecturer: Having been working on a hard paper was better than this computer-generated thing!

Abdullah et al. (2020) attested that resilience is possible if the university provides resources and adequate support to its staff members. The fact that the Lecturer should ensure that diversity is achieved in a class is essential. However, so many teachers were not obliged to do online teaching for many years but their face-to-face teaching. So, it became a challenge to many to acclimatise to online teaching and assessment. When lectures are resistant to the changes, it poses a risk to the progress in terms of reaching and learning and assessment. They have observed a new way of assessing learners. If they do not have a positive attitude from academics' students might not survive the pandemic and win in the fourth industrial revolution because lecturers do not have enough knowledge in the technological system.

The other extracts below show the student who decided to defy the instruction to use the available resources like other students but, in the end, demands his results.

I hope the email finds you well, madam. I can't see my marks on Student Central. Well, you don't see any attachments in learn 2021, but we sent you assignment via email. I was hoping you could mark the one we sent on emails. Yes, I failed to resubmit but also the assignment is there on your emails. Can you please tell me what to do, madam, because now I'm confused?

The student seems to be demanding that his case be treated, especially in the sense that when all other students use Moodle to submit on time, he/she is waiting to submit late at the platform she/he prefers. The student does not show remorse when she asks the lecturer whether the lecturer can't see the email sent and the difference because the assignment is there, so the lecturer is to keep quiet and mark him since he is unique to any other students. Moodle again plays a crucial part in keeping the record and showing that the student never really interacted with the resources there.; this can be how the student is becoming resilient towards other modes of teaching and learning

CONCLUSION

The above discussion has shown that even in the hardest of times, humanity can still survive and even perform better than before. e-Assessment in remote teaching and learning environments has provided the opportunity for higher education to be innovative and implement mechanisms that have maintained quality and enhanced it exponentially, primarily if it is implemented well with adequate provision of resources. Sustainable remote teaching and learning environments seem to be enhanced even more by e-assessment that enable lecturers to account for the learning of all their students. It enables them to work more collaboratively and thus enhance their compassion, resulting in improved critical thinking levels. The latter then becomes the basis for greater creativity.

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