

# **Quality Assurance of Online Teaching, Learning, and Assessment during COVID-19 Pandemic in South Africa**

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**Abstract:** Quality in education remains crucial and is held dear. This has brought about the establishment of offices in learning institutions overseeing quality assurance regarding teaching, learning, and assessment. However, with the COVID-19 pandemic outbreak and the sudden transition of teaching, learning, and assessment from onsite to online, quality has become a more debatable subject. This paper explores quality assurance of online teaching, learning, and assessment during the COVID-19 pandemic. A literature review was adopted; thus, previously conducted research and published articles relevant to the study were reviewed. The study showed that online teaching, learning, and assessment could be synchronous and asynchronous. In addition, while quality assurance in online teaching and learning is possible following the outbreak of the COVID-19 pandemic, formative assessment should be more desired and considered one of the most preferred forms of evaluation. However, educators need to be trained in handling teaching, learning, and assessment synchronously and asynchronously.

**Key-words:** COVID-19 pandemic, online quality assessment, quality in education, formative assessment; online learning.

## **1. Introduction**

The outbreak of the COVID-19 pandemic brought about an impromptu transformation in the teaching, learning, and assessment of students following the move from onsite (face-to-face) to online space (Hargreaves, 2021;

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Elfirdoussi, Lachgar, Kabaili, Rochdi, Goujdami, & El Firdoussi, 2020; Liberman, Levin & Luna-Bazaldua, 2020; Quality and Qualifications Ireland, 2020). Various options, research, and studies have sprung up in the quest for the most suitable solution to the challenge and possible way out for the education system of different nations. This has led to impromptu designs of new policies and adjustments to existing ones. However, the challenge of ensuring quality teaching, learning, and assessment in the online space continues to linger. Liberman, Levin, and Luna-Bazaldua (2020), reporting for the World Bank, asked whether students are still learning during the COVID-19 pandemic. Liberman, Levin, and Luna-Bazaldua (2020) proposed a possible solution to such a question by offering formative assessment as a preference for a proffering answer(s).

Meanwhile, according to Liberman, Levin, and Luna-Bazaldua (2020), formative assessment is conducted by educators in classroom situations as an influential part of the teaching process. The formative assessment encompasses educator observation and continuous homework feedback (Liberman, Levin & Luna-Bazaldua, 2020). Suffice it to the state from the preceding that continuous formative assessment is needed in an online teaching and learning situation. As Gomez Galan (1998) argues, the best driver for improving the quality of education is formative assessment. However, how can quality be assured in assessment?

Darling-Hammond et al. (2013) highlight five criteria for quality student assessment. The criteria are (1) assessment of higher-order cognitive skills capable of allowing students' transfer of learning to new emerging problems and life situations; (2) High-Fidelity Assessment of Critical Abilities useful in the real-life situation rather than through artificial substitutions (this includes skills in using new technologies, research, collaboration, experimentation, and oral, written, and multimedia communication skills); (3) Internationally Benchmarked Assessments; (4) Use of educationally valuable and instructional Sensitive Items; and (5) Use reliable and valid items that accurately evaluate students' abilities.

Thus, online quality student assessments would include every assessment meeting the identified criteria using an online platform(s). In the context of this study, online quality student assessments imply every form of assessment meeting the identified criteria using an online platform(s).

Liberman, Levin, and Luna-Bazaldua (2020) state that formative assessment can be synchronous and asynchronous. Meanwhile, online learning, in some instances, is categorized as synchronous or asynchronous (Khalil et al., 2020). According to Liberman, Levin, and Luna-Bazaldua (2020), the synchronous manner is a situation whereby both the educator and the student simultaneously work on a common online platform. Khalil et al. (2020) describe synchronous technology as allowing live contact/communication between an educator and a student. Typical platforms

include Zoom, Skype, Microsoft Teams, and direct phone conversations for providing feedback to students (Lieberman, Levin & Luna-Bazaldua, 2020).

On the other hand, examples of synchronous technology include audioconferencing, videoconferencing, and web chats (Khalil et al., 2020). Conversely, an asynchronous manner is a situation whereby there is a separation between both students and educators in space and time; thus, online tools like Moodle, Blackboard, and Google Classrooms help educators in providing students with feedback through class activities, quizzes, questions, and tasks (Lieberman, Levin & Luna-Bazaldua, 2020). Asynchronous technology, according to Finkelstein (2006) and Khalil et al. (2020), in some instances, is not timeous and allows substantial delays between the time of the teaching and the reception.

Examples are pre-recorded video(s), discussion forums, and e-mail (Finkelstein, 2006; Khalil et al., 2020). Also, different online applications like Recap: Reflection for Education, Screencastify, WURRLYedu, and Video Response are considered pivotal and helpful in recording students' performance tasks and sharing them with educators (Lieberman, Levin & Luna-Bazaldua, 2020). However, the question remains: how many schools, especially in developing nations, have such facilities to cope with COVID-19?

Meanwhile, teaching, learning, and assessment continued during COVID-19 in different parts of the world, including underdeveloped, developing, and developed nations. Thus, Lieberman, Levin, and Luna-Bazaldua (2020) state that in the context of low-connectivity and low-resource environments, as in many developing and underdeveloped nations, formative assessments remain possible through the adoption and use of Messaging platforms such as WhatsApp and Messenger. In this regard, educators provide students with feedback using WhatsApp and Messenger. However, regardless of how formative assessment is communicated, it needs to be timely, valid, constructive, and precise to students' learning needs (Lieberman, Levin & Luna-Bazaldua, 2020).

The validity of the test is hinged on its alignment with the knowledge content expected to be acquired by the student as part of the learning process. The timeliness of the assessment refers to the appropriate use of the assessment to take swift action and make available curative support where necessary and possible. The capacity of educators to provide feedback to students, who in turn are expected to gain information capable of helping them get guidance on how to improve, identify and tackle misunderstandings, and understand the goals of the learning process, is described as the constructiveness of assessment.

Lieberman, Levin, and Luna-Bazaldua (2020) opine that in times of crisis such as the COVID-19 pandemic, educators can use different resources in conducting the formative assessment, and various companies are making tools more available to a broad range of users; however, checking the contract

terms and confirming that the use is in alignment with all applicable laws and regulations are essential when choosing any specific tool. "DreamBox Math (which provides math instruction based on performance and enables educators to create targeted activities using the AssignFocus option), Questbase (a free online tool to create quizzes compatible with most browsers and IOS), and Woot Math (a free application that automatically generates and assesses thousands of problems to meet each student's learning needs)," amongst others are examples of applications for formative assessment use (Lieberman, Levin & Luna-Bazaldua, 2020, p. 1)." Printed materials supporting early reading skills for younger children and providing support for educators and families are encouraged to be developed in low-resource environments where access to technological devices and connectivity remain challenging.

## 2. Conceptualization of Terms

Quality in Education (QiE): Monyooe (2021), reporting on the speech of minister Angie Motshekga – the South African minister of Basic Education, attributes quality in education to training received by educators. This corroborates the finding of the work of Uleanya, Uleanya, and Oluyemi (2019), who states that there is a need for the education of high school educators to be revisited for quality to be experienced in education. Quality in Education (QiE), according to Nafukho (2021), encompasses a system that emphasizes the prominence of focusing on five significant elements known as a quality learning environment, quality processes, quality content, quality outcomes, and quality learners. In other words, combining the above five elements culminate in quality education.

Similarly, following the work of Olatokun and Omuinu (2021), quality in education can be considered a system enabling individuals to improve all their different skills and attributes to accomplish their potential in life as humans and as members of society. Following the preceding, quality in education is not concerned about the issue of online or onsite. Thus, the most crucial issue with quality in education is that students are taught in such a manner that learning takes place and their real-life potential is realized. Hence, in the context of this study, quality in education is used to mean a system that supports students in various ways to ensure that their full potential is realized, thereby making them beneficial to themselves and their society. This could mean learning onsite or through online platform(s).

Online Quality Students' Assessment (OQSA): Students' learning assessment, according to Lieberman, Levin, and Luna-Bazaldua (2020, p. 1), is "the process of gathering and evaluating the information on what students know, understand, and can do in order to make an informed decision about the next steps in the educational process." Adapting from the idea of Lieberman, Levin, and Luna-Bazaldua (2020) on students' learning assessment, Online

Quality Students' Assessment (OQSA) in the context of this study is used to mean using an online platform(s) to gather and evaluate information based on the knowledge, understanding, and ability of students in order for an informed decision to be made about further phases in the educational process.

Sequel to the previous, quality in education is essential and a significant determinant in ensuring that the goals of education are achieved regardless of the location and level of the institution of learning. However, the way and manner in which quality of education and quality in any education can be explored are through assessment.

Suffice it to state that assessment is pivotal both students, educators, and other various education stakeholders. Meanwhile, with the outbreak of the COVID-19 pandemic, assessments of students have become a difficult hurdle and almost impossible in some instances. In this particular similitude, ensuring quality in assessment, teaching, and learning during the COVID-19 pandemic remains challenging. Thus, this study explores the quality assurance of online teaching, learning, and assessment during the COVID-19 pandemic by reviewing relevant literature.

### **3. Methodology**

This study explores issues revolving around assuring the quality of online teaching, learning, and assessment during the COVID-19 pandemic. A systematic review was adopted for the study. A literature search focused on quality assurance of online teaching, learning and assessment during the COVID-19 pandemic was conducted. Suitable search engines were used for them according to the proposal of Chris (2022). After the search, a corpus of 18 relevant documents was found, adopted and analyzed for the study.

According to Thomas G. Carpenter Library (2021), a literature review allows researchers to assess current argument trends in a topical area. Moreover, reviewing literature also permits the identification of central topics and key question(s) around a particular topic in the area of focus (Thomas G. Carpenter Library, 2021). A literature review can identify other areas requiring more research (Thomas G. Carpenter Library, 2021; Snyder, 2019). Thus, relevant literature was reviewed for this study, and the findings are reported accordingly in the discussion section using different identified headings.

### **4. Results and Discussion**

The study's findings following the review of relevant literature are presented in this section using headings such as quality assurance of online teaching during the COVID-19 pandemic, quality assurance of online learning

during the COVID-19 pandemic, and quality assurance of online assessment during the COVID-19 pandemic.

#### *4.1. Quality Assurance of Online Teaching during COVID-19 pandemic*

Assuring the quality of online education programs is a significant challenge faced by institutions of learning (Marciniak, 2018). With the outbreak of COVID-19, the challenge is likely to increase. Nakweya (2021), reporting on the views of experts regarding the issue of quality assurance in online learning, states that "pedagogy in higher education during the current COVID-19 period requires an understanding of the technical aspects of online teaching to enhance quality from all stakeholders in university education, including students, and especially from academic and non-teaching staff (Nakweya, 2021, p. 1)."

This implies that quality assurance in online learning following the outbreak of COVID-19 is expected to be a concern for all stakeholders in education. Additionally, to improve the quality of online teaching, teaching and non-teaching staff are to be furnished with the required skills to support students in online teaching (Nakweya, 2021). Thus, contrary to the view of Monyooe (2021), reporting the speech of the South African minister of Basic Education and the work of Uleanya, Uleanya, and Oluyemi (2019) attributing quality in education to the training received by educators, quality assurance in online teaching goes beyond educators' efforts but includes the support of non-teaching staff.

For instance, Nakweya (2021) reported in the words of the vice provost of quality teaching and learning at Kenya's Aga Khan University, in the person of Professor Tashmin Khamis, states following the sudden transition from onsite to online teaching after the outbreak of the COVID-19 pandemic: "We learned that you need a coordinated effort between IT, instructional designers, e-learning developers, and educational technologists as well as education developers (Nakweya, 2021, p. 1)." This suggests that the role(s) of Information Technology (IT) specialists in ensuring smooth online teaching is pivotal.

In congruence with the findings of the work of Liberman, Levin, and Luna-Bazaldua (2020) on the need for a synchronous and asynchronous environment in online teaching situations from the perspective of formative assessment, Nakweya (2021) reporting Professor Tashmin Khamis reports that institutions of learning need to possess a good blend of the synchronous, asynchronous and independent learning environment while putting to use whatever the digital environment provides. According to Khamis, reported by Nakweya (2021), Technology and learning management systems remain mere tools; it is, therefore, necessary for teaching staff to introduce quality into their teaching using such tools. Nakweya (2021), reporting Khamis, further states that educators need to be innovative in creating and using different

mechanisms to ensure constant interaction between them and their students and feedback and interaction among students.

Pedro and Kumar (2020) studied institutional support for online teaching in the quality assurance framework. Using a scoping review, the study analyzed the different types of needed support of higher education faculty who teach online. This was done using thirteen (13) online education quality frameworks. The study's findings show that lecturers need professional development on different topics in relation to online teaching. These topics include interactions, course design, communication, assessment, and learning management system.

The study's findings also show that there is a need for enabling an institutional environment that recognizes and rewards lecturers' engagement in online teaching and, at the same time, promotes lecturers' development of skills and knowledge about online teaching. Other areas needing attention regarding online teaching following the findings of the study of Pedro and Kumar (2020) include: instructional design and technical support, online education research support, and online program management support.

Additionally, it is essential to note that according to the South African Council on Higher Education (CHE) (2020), while online teaching and learning are encouraged and to be promoted, especially following the outbreak of the COVID-19 pandemic, caution is to be taken. Thus, specific guidelines are issued by the Council on Higher Education (CHE) (2020) to guide online teaching and learning activities. Table 1 below shows the guidelines to be followed as issued by the Council on Higher Education (CHE) (2020) while undertaking teaching and learning activities.

S/No	Quality area	Quality measure	Supporting evidence
1	Program management	Active and consultative management of programs taking the restrictions of the pandemic into consideration	Evidence of consultation with academic staff
			Evidence of communication with students
			Evidence of consultation with students
			Evidence of identifying students at risk and the implementation of appropriate interventions
2	Teaching and learning	Clear and consistent communication to students of existing (and adjusted) module outlines and outcomes	Substantive evidence of relevant information, emergency remote formative assessment, and feedback to students on the institutional LMS
		Clear and consistent planning and communication to students (including motivations and ex-	Records of academic reflections and evaluations of the learning

		planations of changes) of revised timetables, adhering to notional hours	material developed in emergency remote teaching mode
		Regular and authentic engagement with students in various forms, including emergency remote formative assessments, to create community as well as a presence rather than an absence	
		Reflection and evaluation on learning material developed in emergency remote teaching mode with quality feedback loops to second-semester material	
		Multiple channels of communication with students, e.g., on social media	Varied student support plans and implementation reports
		A student support plan using tutors or other support staff	Student feedback with reports and interventions, and responses based on the feedback
3	Student support	A specific support plan for students with disabilities, which includes identification, support, and interventions	
		A specific support plan for students who have not had access to devices or data	
		Feedback opportunities for students	
		Interventions based directly on the student feedback	
		Academic staff trained to create digital learning materials	Training materials
		Academic staff trained to create a remote emergency assessment	Training schedules
4	Staff capacity development and well-being	Staff access to devices and data and how to use them	Reports on staff access to devices and data and their digital literacy
		Workload and performance agreements re-negotiated for new conditions	Revised workload allocations and performance agreements
			Evidence of engagement with staff concerning their ability to cope and general well-being

*Table 1.* Emergency remote teaching and learning quality-assurance guidelines for 2020. Source: Quality Assurance Guidelines for Emergency Remote Teaching and Learning and Assessment during the COVID-19 Pandemic in 2020, Council on Higher Education (CHE) (2020)



Table 1 shows that to adapt online teaching and learning as the new practices following the transition from onsite to online; certain areas are to be considered and well handled. The highlighted areas, as enumerated in the guidelines by the CHE (2020), include: ensuring sound management of the program, teaching, and learning, providing support for students, as well as developing staff capacity and ensuring their well-being. Suffice it to state that attempting to ensure smooth running of online teaching and learning activities may be futile if the highlighted areas are poorly handled.

Thus, online teaching and learning do not only entail and involve students and educators but many other education stakeholders who have various roles to perform. Meanwhile, in support of the need for capacity building with regards to ensuring and promoting quality in online teaching and learning, Cirlan and Loukkola (2021) state that there is a need for investment in capacity building for both staff and students and for different digital tools to be used more efficiently.

#### 4.2. *Quality Assurance of Online Learning during COVID-19 Pandemic*

No schemes or formulas explain the components that should be included in online learning programs (Marciniak, 2018). According to Pannen (2021), following the virtual and flexible nature, the need for evidence of quality in online learning is higher than with the traditional approach. Huertas et al. (2018) explain that several learning institutions are moving to online learning. However, contrary to this, "the quality assurance of such provision has been given far less consideration (Huertas et al. 2018, p. 1)." This suggests that adequate attention seems not to be given to the quality provided in online learning. Nakweya (2021) reports following an online study conducted at Aga Khan University on the satisfaction of students and teaching staff with online teaching and learning during the COVID-19 pandemic.

The result showed that 88% of the students expressed satisfaction with their online learning experience; however, lack of access to interact with their peers and not having good bandwidth were their paramount dissatisfaction. According to the Australian Government, Department of Education and Training, in conjunction with Asia-Pacific Economic Cooperation (2017), there is a need for specific areas to be examined regarding online learning programs. The areas include teaching and learning, student assessment, student support service, staffing and staff development, financial and physical resources, and quality assurance.

Meanwhile, Jung, Wong, and Belawati (2013), quality assurance issues in online learning evolve around the following: designing policies to accommodate the needs of students, giving opportunity for students to study and progress at their own pace following the flexibility of online learning, swiftly increasing staff size/strength and quality, especially educators and IT

staff, supply of quality teaching resources, and strengthening leadership, amongst others.

According to Cirlan and Loukkola (2021), the size of the institution of learning, the model of governance, the rate of discipline, and the status of the provision for online teaching and learning prior to the outbreak of the COVID-19 pandemic are factors that affect online teaching and learning practices of different institutions of learning during the era of the crisis of the COVID-19. Sequel to the preceding, while there may be no schemes or formulas that explain the components that should be included in online learning programs, quality assurance of online learning during the COVID-19 pandemic and lack of infrastructure also contribute to challenges experienced during online learning.

#### *4.3. Quality Assurance of Online Assessment during COVID-19 pandemic*

Assessment of online learning programs has no formulas or schemes for defining the components that need to be included or excluded (Marciniak, 2018). Though, this study focuses on assessing students using online platforms, which is pivotal, rather than assessing the entire online program. According to Blackstock, Al Shamsi, and Bajammal (2021), since around the time of the outbreak of the COVID-19 pandemic and the sudden transition of several institutions of learning from onsite to online, adopting virtual methods of assessment and quality assurance have been questionable, especially concerning issues revolving around the maintenance of academic integrity.

However, in the works of Alsadoon (2017) and Elzainy, El Sadik and Al Abdulmonem (2020), the online assessment allows students to display their critical thinking and problem-solving competencies. These are some of the identified significant benefits of the shift from onsite (traditional) teaching, learning, and assessment practices to online, where educators are expected to mainly facilitate, as opposed to teaching (Elzainy, El Sadik & Al Abdulmonem, 2020; Alsadoon, 2017).

Moreover, online assessments help to reflect the type and level of learning that takes place online and allow students to take more responsibility for and in their learning (Elzainy, El Sadik & Al Abdulmonem, 2020; Liang & Creasy, 2004). A review of the work of Kelo (2021) shows that online training and guidelines on topics related to e-assessment are paramount. This shows the importance of assessing quality in online programs, especially following the sudden shift from onsite to online practices in teaching and learning.

Conversely, according to Gamage, de Silva, and Gunawardhana (2020), online assessment is a recent trend and experience in many learning institutions regardless of the level, following various challenges, especially as safeguarding academic integrity is involved. For instance, Gamage, de Silva,

and Gunawardhana (2020) assert that take-home assignments make assessment possible.

Nevertheless academic integrity in this instance is at stake, whereas Bearman, Dawson, O'Donnell, Tai, and Jorre de St Jorre (2020, 4) state, "Academic integrity focuses on equipping learners with the capabilities and values necessary to conduct ethical scholarship. In contrast, assessment security focuses on hardening assessment against attempts to cheat and detecting any cheating that has occurred (Bearman et al. 2020, p. 4)." Also, students are not physically present as the case is in the traditional classroom situation (Gamage, de Silva & Gunawardhana, 2020). For instance, Zalat, Hamed, and Bolbol (2021), as well as Oncu and Cakir (2011), in congruence, state that due to the absence of face-to-face contact, assessment such as information can be challenging to educators using online platforms.

Following the review of the work of Blackstock, Al Shamsi, and Bajammal (2021), the sequel to the outbreak of the COVID-19 pandemic, between the space of three months, precisely March and May 2020, the number of recorded online lectures 61,000, however, the number of online assessments was 115. This suggests the swiftness and ease for educators to conduct online lectures, but online assessment remains an issue. Blackstock, Al Shamsi, and Bajammal (2021) yet posit that there is a need for diversifying the method of assessment by institutions of learning.

Meanwhile, Zalat, Hamed, and Bolbol (2021) believe that practicable adaptable techniques for conducting secure online assessments are possible. Thus, from the previous, diversifying the adopted assessment methods following the transition from onsite to online is possible and should be desired. The South African Council on Higher Education (CHE) (2020) supports using online platforms for formative and summative assessments. Such is, however, to be conducted following specific guidelines. Table 2 below shows the necessary guides to be followed in the advent of the adoption of the online assessment.

S/No	Quality area	Quality measure	Supporting evidence
1	Assessment plans and communication for both formative and summative assessment	All assessment activities should be explicit, clear, unambiguous and implementable	Communication of emergency remote assessment plans to students
		A clear link between the assessment activity to the module outline and the expected outcomes	
		Clear information about the weight and value of the activity in terms of the module's overall assessment plan and the relationship of a formative activity to the final summative assessment.	

		Transparent mark allocation or rubrics upfront	
		Clear range statements	
		A variety of activities on different cognitive levels	
		Technical submission information and technical instructions, as well as technical support, are available	
2	Formative assessment	Formative assessments should be regular and directly linked to the module outcomes	Actual emergency remote formative assessment activities from students and feedback and results on the LMS
		Flexible or alternate submission dates for activities should be the norm	
		Formative assessments should have personalized, timeous and clear feedback	
3	Summative assessment	Summative assessment strategies should be planned within the institutional policies and procedures, which may have been amended for remote emergency assessment	Records of revised emergency remote assessment plans
		Summative assessment is designed, implemented, marked, and moderated by adequately trained staff	Staff and moderators' CVs
		All levels of summative assessment should have gone through a process of internal moderation	Actual emergency remote assessment activities from students and feedback and results on the LMS
		Exit-level summative assessment should have gone through a process of external moderation	Internal and external moderation reports
		Summative assessment outcomes should be reliable	
		Summative assessment plans should be explicit and communicated to students in good time	
		Summative assessment should be authentic, i.e., the assessment should be real-world tasks that demonstrate meaningful application of essential knowledge and skills	

4	Assessment administration	A secure and reliable assessment management system is in place at the institutional level that provides accurate, consistent, and credible results	
		Student communication on formative and summative assessment must be timeous, explicit, clear, and unambiguous, with guidance on their rights and responsibilities, at institutional level, at the program level, and module level	Assessment system Student communication Appeals report
		A student dispute and complaints mechanism should be in place that is explicit, fair, and effective	

*Table 2.* Emergency remote assessment quality-assurance guidelines for 2020. Source: Quality Assurance Guidelines for Emergency Remote Teaching and Learning and Assessment during the COVID-19 Pandemic in 2020, Council on Higher Education (CHE) (2020)

Table 2, which presents the guidelines put forward by the Council on Higher Education (CHE) (2020), shows that the successful adoption of online assessment would involve collaborative efforts from academic and administrative staff members of institutions of learning. This corroborates the works of Nakweya (2021) and Jung, Wong and Belawati (2013), who believe that quality online teaching, learning, and assessment practices involve various education stakeholders, not only academic staff members and students.

## 5. Conclusions

The study explored the quality assurance of online teaching, learning, and assessment during the COVID-19 pandemic. Consequently, relevant literature was reviewed and reported. The study showed that quality online teaching, learning, and assessment are possible. The study further showed that ensuring quality in teaching, learning, and assessment in a traditional classroom situation is critical and much more in online situations following the sudden transition from onsite to online during the COVID-19 pandemic. Despite various efforts to ensure quality online teaching, learning, and assessment are upheld, several challenges tend to affect and hamper such. These challenges include the institution's size, online teaching, learning, and assessment practices before the COVID-19 pandemic, governance, infrastructure, availability of support systems, and issues revolving around the students themselves. Sequel to the findings of the study, the following recommendations are made:

1. Educators should embrace online teaching, learning, and assessment, regardless of location.
2. Students should be motivated to see the need for and embrace online teaching, learning, and assessment practices.
3. Integrity in online assessment should be upheld. This can be done through organizing various periodic trainings capable of capacitating educators on ensuring integrity in online assessment practices: either formative or summative.
4. The guidelines put forward by the Council on Higher Education and other relevant association(s) on ensuring quality and integrity in online assessment should be upheld and duly put to use.
5. Provision of the necessary infrastructure needed to ensure quality online teaching, learning, and assessment should be made by the government, institutions of learning, and other relevant education stakeholders where necessary and possible.
6. Monitoring how online teaching, learning and assessment are conducted should be done promptly.

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