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Reimagined Continuous Assessment for Open Distance Electronic Learning

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Abstract
Continuous assessment involves several assessment activities to track students' progress and learning. Challenges experienced during online examinations by the lecturers and students at the University of South Africa have forced the University to reimagine its assessment policies. Continuous assessment is not a new phenomenon or assessment method; however, it has recently been reimagined for online learning and assessment, replacing online examinations. This study aimed to explore continuous assessment strategies that are used to reinforce student learning and participation in open-distance electronic learning (ODeL). An interpretive study of continuous assessment strategies was undertaken to research the process used by lecturers to reinforce student learning and participation in an ODeL university in South Africa. The study was conducted through an online questionnaire targeting lecturers from the College of Education of the University of South Africa (UNISA). The lecturers use multiple assessment activities designed for ongoing assessment to evaluate student learning that promotes regular feedback through assignments or assessment activities that build on each other.
Keywords: continuous assessment, online learning, online assessment, student learning and participation
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Introduction

Dejene (2019) regards assessment as a central element in higher education's overall quality of teaching and learning at all levels of education. Continuous assessment aims to support student learning in higher education by monitoring student academic performance and providing adequate feedback while increasing motivation for learning (Santos-Berbel, Garcia & De Santos Berbel, 2022). This article argues for continuous assessment strategies that lecturers can use to reinforce student participation and learning in online modules. There is a need for various online continuous assessment strategies that will improve students' participation, learning, and competencies (Njihia, Mwaniki & Ireri, 2022). The College of Education of UNISA is training future teachers who are expected to demonstrate knowledge, skills, and competencies of teaching. How they are taught and assessed is also important as they are expected to showcase their competencies (teaching). With the emergence of online education, there is a need for online assessment strategies to assess knowledge, skills, and competencies. According to Ma and Bui (2022), continuous assessment is characterized by frequent online tests or assignments (weekly), tasks are marked without delay, and cumulative marks account for the course grade. Fully online modules are mainly using continuous assessment to determine the passing mark of the students. Continuous assessment is used in traditional assessment to provide a grade that reflects the level of competency achievement (Sanchez-Ruiz, Moll-Lopez, Morano-Fernandez & Rosello, 2021). Continuous assessment involves forms such as examinations, tests, assignments, projects, portfolios, essays, and presentations, which are formative and widely used in schools. These activities should contribute to the achievement of competencies.

Lecturers experience numerous challenges when administering online examinations. To name a few, student cheating, difficulty in proctoring assessment, the digital divide, lack of training of lecturers and students, and many students' grievances. "Key challenges with online assessments usually revolve around security, authentication, and integrity of online exam process" (Sharma & Singha, 2014 cited by Njihia et al., 2022, p.57). Online examinations are not flexible as they limit students to a particular ICT. Stable and steady internet supply is a problem in South Africa because of some locations (rural areas), lack of infrastructure, and load-shedding. The instability of Moodle is a serious concern due to its inability to administer more than 5,000 students in one module. The author aimed to gather continuous assessment methods that evaluate each student, follow their progress, and enhance formative abilities and wanted to identify the continuous assessment method that helps students reach their level of potential and enhance their capabilities throughout the course. This study was carried out to identify and analyze continuous assessment strategies that reinforce student participation in instruction in an ODeL environment (university). Thus, the research question: *What continuous assessment strategies do the lecturers use to reinforce student learning/participation in learning in ODeL?*

Background

During the coronavirus (COVID-19) pandemic, institutions of learning were forced to teach and assess via online technologies. The University of South Africa gave their lecturers different assessment options, ranging between online examinations, continuous assessments, and portfolios. Later, this decision was changed to having fully online modules that will assess students using continuous assessment. Assessment at the university studied focuses on making academic judgments related to diagnostics, placement competence, progression, and/or qualification completion; as a feedback mechanism to improve curricula, known as assessment of learning; and as a feedback mechanism to improve curricula, known as assessment of learning (UNISA, 2019:3). The purpose of formative assessment in ODeL is to provide contact support and structure to students who are unfamiliar with or alienated from the distance learning experience (UNISA, 2019:3). The summative assessment tools of the university studied are an online portfolio, take-home examinations, and randomized multiple-choice questions (MCQs). Continuous assessment involves formative assessment activities such as MCQs, frequent assignments, and tests.

DiCerbo, Academy, and Alto (2020) argued the digital world allows for inferences about what students know and can do as they engage in learning activities. As a result of this process, the line between learning and assessment becomes increasingly blurred. The availability of information and communication technologies (ICT) in any space-time framework facilitates online learning and assessment (Lopez-Tocón, 2021). ICT reinforces digital learning through smartphones and connects users to the internet, allowing the establishment of more dynamic activities while giving students greater participation in the instruction.

The university studied is currently using Moodle to facilitate student learning. According to Abd Halim (2021), for online continuous assessment to be useful, the university must have a learning management system (LMS) that will serve as a dashboard to present and visualize the results. “Dashboard is a tool that can be used to display relevant information from a set of indicators to user” (Abd Halim, 2021:111). This tool can be used to monitor higher education processes and activities, analyze the cause of problems, and manage people and processes to improve decisions. Moodle is an LMS that provides a visualization dashboard with synchronous inter-action media such as charting and asynchronous interaction features such as discussion, assessment, user management, and course management (Abd Halim, 2021). Furthermore, Moodle can be used to track student attendance, participation, and continuous assessment performance. Thus, this suggests that Moodle was designed for online continuous assessment.

Theoretical framework

“A theoretical framework draws on theory or concepts from a theory, to shed light on a particular phenomenon or research problem” (Nielsen & Skaarup, 2021, p.90). Theory reflects findings that have the potential to improve and modify the framework as well as highlight potential limitations. The researcher used constructivism and network learning theories to underpin this study because constructivism focuses on student-centred teaching and learning while network learning talks about mediating learning through technological tools and virtual learning through networks and teams. Bower (2019) highlighted that research conducted in online teaching and learning is criticized for being under-theorized. Learning management systems and technology are means of mediating teaching and learning in online institutions. The network learning principle guided this study; dialogue and social interaction support the co-construction of knowledge, identity, and learning. Concerning Sanchez-Ruiz et al. (2021), continuous assessment fits within constructive alignment because it is an outcome-based approach. It focuses on each student’s learning process and learning outcomes assessment.

“In a broad sense, constructivism refers to the creation of something new through learning” (Allen & Bickhard, 2022, p.5). The researchers anticipate learning new concepts from the participants' experiences and context to construct more complex representations such as concept or proposition construction. Constructivism, according to Orak and Al-Khresheh (2021), describes how individuals internalize the meaning of the world with raw facts to form new and uniquely different knowledge for themselves and emphasizes the discovery of new meaning through conversations, discussion, collaboration, and construction. Constructivists view the meaning construction process by students and lecturers in two ways: the lecturer must design situations that pique students' motivation, expose them to dissonance, and create appropriate tasks; and lecturers should play the role of facilitators to tailor to the students' proficiency and encourage autonomy and self-constructs through task and projects (Orak & Al-Khresheh, 2021) - they thus suggest that lecturers must encourage discussion among students.

Constructivist settings involve situations, conversation, collaboration, and meaning construction while imagining problems to be more conducive to students' deeper understanding and knowledge-building through the reconstruction of their previous knowledge (Orak & Al-Khresheh, 2021). Online learning is student-centered, with knowledge and meaning socially constructed (Xu & Shi, 2018 cited by Orak & Al-Khresheh, 2021). Student-centredness depends on the lecture’s scaffolding of students. Still, the primary concern of constructivism involves externalizing knowledge, placing the student at the centre, and facilitating autonomous students who

comprehend feedback.

"Networked learning involves processes of collaborative, co-operative and collective inquiry, knowledge-creation and knowledge action, underpinned by trusting relationships, motivated by a sense of shared challenge and enabled by convivial technologies" (Hodgson, 2020, p.320). He went on to say that network learning focuses on interpersonal relationships, while technology focuses on collaborative engagement in a valued activity. The following assumptions underpin technology-mediated learning: digital technologies can mediate interaction patterns and possibilities between networks of participants, and how technology is used to mediate interaction patterns and possibilities between networks of participants influences the learning that occurs (Bower, 2019). Network learning is defined as the process of bringing students together through technological tools and platforms to collaborate as a learning community (McConnel, 1998 cited by Hodgson, 2020). Through reciprocal collaborative learning, they share their knowledge, experiences, and responsibilities. It also encourages connections through intentional activities that prepare students to work creatively, identify and construct problems to work on, locate resources, and solve problems.

Literature review

"Continuous assessment refers to the use of one or several assessments during the course period, instead of a single final exam in the last week of the semester" (Day et al., 2018, p.938). The aim is to keep students on track by working on different assessment activities testing knowledge and skills. Continuous assessment, according to Ezewu and Okaye (1986), is systematic and cumulative, but it must be guided. "Continuous assessment refers to the assessment of a student throughout the tuition period and may be an alternative to a single final summative assessment" (UNISA, 2019, p.3). This process provides feedback to students and lecturers involved in the module. They go on to say that continuous assessment provides opportunities for reflection on learning and results and that they can use essays, presentations, and partial examinations. Institutions of higher education can use continuous assessment to improve students' learning and engagement (Rezaei, 2015; Holmes, 2015 cited by Day et al., 2018).

This type of assessment involves accumulative grade that reflects the level of competency attained (Sánchez-Ruiz et al., 2021). It is a paradigm that requires institutions of higher learning to use a wide variety of forms of assessment while considering the levels of outcomes. Continuous assessment is formative because it focuses on students' learning and helps gather data on students' learning processes. Continuous assessment has the potential to help students learn by providing feedback and increasing their motivation to learn (Dejene, 2019). This is done by focusing on each student's learning process and the assessment of the learning outcomes. Worth noting is that assessment strategies should contribute to competency achievement. Assessment is used at the university level to determine which competencies students should achieve, how students should achieve these competencies, and how the competencies will be evaluated (Sanchez-Ruiz et al., 2021). The main advantages of continuous assessment are that it increases student motivation, improves feedback practice and effectiveness, and assists students in becoming self-reflective learners. These are characteristics of formative assessment. "Continuous assessment is usually formative and summative" (Sanchez-Ruiz et al., 2021, p.16). The formative aspect of continuous assessment is generally used to monitor students' learning process and provide feedback that helps both students and instructors identify the level of achievement. The summative aspect of continuous assessment, on the other hand, aims to evaluate the level of achievement of competencies at a given point in the learning process by comparing outcomes to assessment standards. It should be noted that students experience increased anxiety because of continuous assessment. Feedback is vital in assessment and encourages lecturers and e-tutors to play a coaching role in students regardless of the nature of the assessment.

Continuous assessment is said to improve deep learning when students receive feedback on a regular and timely basis (Dejene, 2019). Continuous assessment, as a modularisation principle, requires students to be assessed regularly and given appropriate and timely feedback. This is done to help students improve their performance and meet module objectives. Continuous assessment refers to frequently assessing students to provide regular feedback, but Dejene (2019) discovered that this is not the case. Due to the large number of students in one module, lecturers are hesitant to provide feedback. Another issue that has been raised is that students in group assignments are unaware of the assessment criteria. Students must understand how they will be evaluated and what skills they must demonstrate.

"The study found out that because of the inadequacy of time, the instructors are obliged to depend on objective paper and pencil tests rather than subjective assessment types like essays, projects, etc" (Dejene, 2019, p.12). The dominance of traditional assessment strategies of continuous assessment has caused it to be undermined.

Advantages and challenges of online continuous assessment tests

Advantages	*Challenges*
• It is flexible. • It provides instant feedback. • It offers self-evaluation. • It encourages discussion	• Instability of Moodle • Login issues • Students with special needs struggled to use ICT not catering to their disabilities. • System struggling to cater to many students in one module

Adapted from Njihia et al. (2022)

- **Online assessment**

According to Gunn (2015), cited by Njihia et al. (2022), online assessment has become a key strategy for motivating, engaging, and providing timely feedback to 21st-century students. Students own the learning process in this case because they become key actors and develop learning communities with valuable learning experiences. Online assessment allows students to complete assessments from anywhere and at any time; it provides immediate feedback in the form of instant results; and it allows students to self-evaluate their scores before the end of the year or course. Students use instant feedback as a proactive diagnostic tool to evaluate their knowledge, skills, and competencies; this process allows them to identify areas for improvement (Njihia et al., 2022). Formal online assessments are highly rated on efficacy. The university study focuses on formal online assessment because students must get a judgment on capabilities and competencies at the end of the year or course. Most formal online assessments are self-grading such as multiple-choice questions which save a lot of time for the lecturers and allow them to develop and implement remedial measures (Njihia et al., 2022). It also requires materials and processes to achieve all the benefits available.

In a technologically advanced environment, assessment entails high-quality, ongoing, unobtrusive assessment that can be aggregated to inform a student's evolving competency levels (DiCerbo et al., 2020). Worth noting is that assessment strategies should contribute to competency achievement. The University of Alberta used e-folios and p-folios for continuous assessment to assess competence in different modules. “E-folio is a short digital document elaborated by the student and published online to be visualized by the teacher and should demonstrate that the student acquired and developed given competence” (Pareira et al., 2007, p.19). It may also include critical reflection on students' work/learning, fieldwork reports, a problem-solving activity, reading reviews, or the creation of artifacts. It also includes critical reflection on students' work/learning, reports on fieldwork, a problem-solving activity, reading reviews, or the creation of artifacts. This is accomplished by combining elements of the testing and assessment cultures because continuous assessments are not considered alternatives to traditional tests, but rather complementary to them. According to Pareira et al. (2009), assessing competence necessitates a strong emphasis on diagnostic and formative assessment characteristics to promote reflection and competence development.

Contrary to popular belief and practice, online assessment is about continuously collecting data as students interact with the digital environment, which could be playing or learning - it is carefully designed to make inferences about relevant competencies (DiCerbo et al., 2020). The institution can obtain evidence about what students know and can do across multiple contexts through various channels. According to Singh and Gokool (2018), online assessments should include multiple-choice questions, true or false questions, short answer questions, matching and comprehension quizzes, and other types of questions. A well-crafted MCQ can have a positive impact on students' achievements and performance while also motivating them to learn (Holmes, 2015 cited by Singh & Gokool, 2018). Digital assessment activities are touted as more authentic because they allow students to put their skills to use (DiCerbo et al., 2020).

- ✓ *Moodle quizzes*

Due to the large number of students within modules from the College of Education, lecturers rely mainly on online quizzes (Njihia et al., 2022). This requires a stable and steady internet supply, another issue for the university studied. The study of Singh and Gokool (2018) concluded that online quizzes are a practical tool that provides instant feedback that facilitates reflection. Online quizzes are also online continuous assessment tests and are not only suitable for content modules but also for practical modules such as mathematics. It is the main assessment activity for continuous assessment that can be repeated frequently until a skill is learned.

- ✓ *Online continuous assessment tests*

This form of assessment encourages discussions between students and lecturers after receiving feedback (Njihia et al., 2022). Students can immediately seek clarification on computer-marked answers as well as difficult concepts. Aziz, Abou-Samra, and Aprillianto (2022)

suggest that there is a need for continuous testing since the once of testing used for benchmarking for assessment has not been able to represent all the students' abilities. Thus, reduces the validity of assessments such as examinations.

- **Student learning and participation**

The engagement of students in an ODeL environment has always been a concern due to the lack of physical contact between the lecturer and students (Chaka and Nkhobo, 2019). Students are expected to engage more with other students It is therefore apparent from these findings that students can participate online. Fabian et al. (2022) assert that transactional distance influences participation, and e-learning capital influences study skills engagement. This is because student engagement is more commonly used to measure the effectiveness of online learning. Fabian et al. (2022) alluded that participation represents student engagement through interaction with instructors and other students; emotional engagement, which characterizes students' emotional involvement with the course; and performance, which links to grades.

- **Formative assessment strategies**

Gikandi, Morrow, and Davis (2011) have established a clear overlap between summative and formative assessments. They further argued that formative assessments can serve a summative approach and equally, summative assessments can serve a formative purpose if their results are used for learning at a later stage (Gikandi, Morrow & Davis, 2011).

The table below outlines online assessment strategies that can be used to assess students in an ODeL environment, and it indicates the overlap between formative and summative assessments.

Assessment strategies	Formative assessment	Summative assessment
Rubrics	Yes	Yes
Netfolio (e-portfolio)	Yes	Yes
Student-generated MCQs and concept maps	Yes	Yes
Reflection journals	Yes	Yes
Comprehensive final examinations	No	Yes
Case study analysis	Yes	Yes
Wikis or blogs	Yes	Yes

(Source: Perera-Diltz & Moe, 2014)

Formative assessments play a vital role in the learning process of students, particularly in ODeL. It is therefore important that different strategies of assessments are used to assess students to enhance learning and maximize participation. A few strategies of assessment are briefly discussed below to unearth their suitability and shortfalls in an ODeL environment.

Quizzes

Quizzes are often administered to ascertain the performance of students and to receive feedback efficiently. Quizzes are very useful because they can be administered throughout the academic year. Furthermore, quizzes provide automated feedback which makes them more suitable for ODeL. A study performed by Lowe (2015) revealed that students participate and appreciate quizzes as they help with the preparation of summative assessments.

Multiple-choice questions (MCQs)

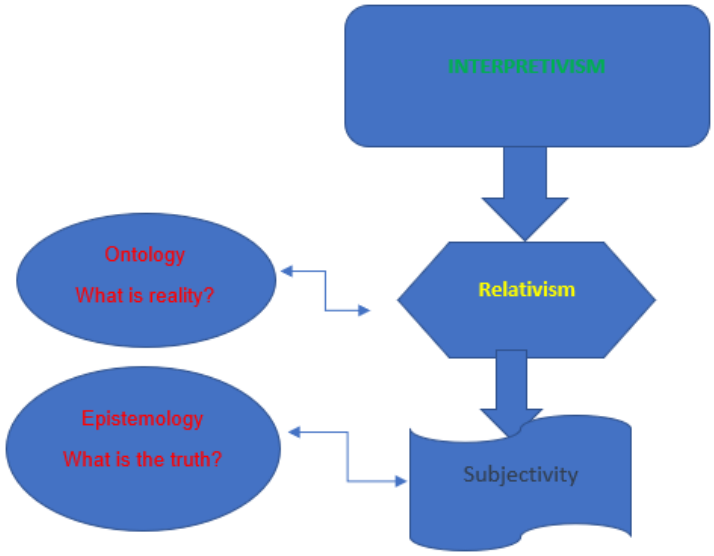
Multiple-choice questions can take the form of a single best answer, a single correct answer, or extended matching (Khan & Jawaid, 2020). Although MCQs can take different forms, concerns have been raised regarding their ability to assess higher cognitive order thinking skills (Appiah & Van Tonder, 2018). These claims are disputed by Farrell and Rushby (2016), who state that MCQs that are developed will have the ability to assess the highest order of thinking skills in students. Like quizzes, MCQs provide efficient feedback.

Methodology

The methodology is a logical and theoretical perspective embedded within a study (Webb & Welsh, 2019). It involves research design, approach, and strategies. This is a phenomenological interpretive approach for analyzing continuous assessment strategies used in an ODeL university's College of Education in South Africa. A case study is a descriptive and qualitative method of analysis that involves investigating a phenomenon within a real-life context (Baron & McNeal, 2019). It requires the researcher to investigate every aspect of the context – individual, group, program, business, event, and activities. The College of Education has 10 departments that offer modules through Moodle and this college assesses students via continuous assessments, e-portfolios, online portfolios, and online examinations. According to Webb and Welsh (2019), qualitative research positions the researcher as an observer and interpreter of things in their natural setting. The researchers try to make sense of or interpret phenomena within multiple, locally constructed realities. They interpret the participants' experiences with continuous assessment. A purposive sample is made up of participants whose characteristics are defined for a specific purpose related to the study (Andrade, 2021). The researchers purposively chose the population of

lecturers using continuous assessment in their modules. Purposive sampling is also described as judgemental because the researcher decides and judges who will provide the best information for the study (Etikan & Bala, 2017). The objectives of the study help the researchers decide on the participants of the study. This study targeted lecturers who conducted an online examination and continuous assessment in their modules from the College of Education. Etikan and Bala (2017) argue that the researcher should concentrate on people who share similar beliefs or opinions and are willing to share their knowledge.

The purpose of this study was to interpret and describe lecturers' experiences with continuous assessment. The author is of the view that truth, reality, and knowledge are there to be discovered without the influence of the researcher. The experiences of the lecturers represent their reality and truth about their context and form our perceptions of reality and truth. "Interpretivism argues that truth and knowledge are subjective as well as culturally and historically situated, based on people's experiences and their understanding of them" (Gemma, 2018, p.8). Interpretivism is a research paradigm that guided the strategies and analysis of this study because the author values subjectivity.



Adapted from Gemma (2018:2)

The online questionnaire was designed by using Google Forms and was shared as a link through Intcom, which is the internal communication channel of the university. An online questionnaire is a series of questions designed specifically to gather information about a specific audience or group of people (https://www.questionpro.com/blog/online-questionnaire). The online questionnaire created ad hoc, reflects the objectives, and matters of this study while considering the experiences of the lecturers. No personal information is required to ensure anonymity and to promote freedom of response. Online questionnaires generate closed-ended and open-ended questions to assess lecturers' experiences with continuous assessment. The findings were analyzed through thematic analysis by identifying themes and sub-themes from the data. Thematic analysis is used to examine classification and present data-related themes (Ibrahim, 2012). The aim was to illustrate the details and to deal with diverse subjects by interpretation. The data are presented through tables, graphs, and themes derived from data collected through the online questionnaire. The findings were discussed using themes answering the research questions. According to Ibrahim (2012), qualitative data collection depends on interpretation because data require different explanations. Thematic analysis is a type of qualitative analysis that is used to analyze classifications and present data-related themes (Ibrahim, 2012). Thematic analysis was used by the researchers to illustrate data in detail and to deal with a variety of subjects through interpretations. The argument is that the researchers will be able to detect and identify variables that influence any issue generated by the research participants.

Ethical considerations: Permission to conduct the study was requested from the university and the lecturers involved in the modules. All procedures followed as specified by the guidelines of the university studied.

Findings

The themes and table were used by the researchers to present the findings, which were analyzed using previous research on continuous assessment and theories. Thematic analysis is an approach to identifying and analysing patterns in qualitative data that can be used to examine experiences narratively (Ngui et al., 2020). For better interpretation, the themes that emerged from the data sets were modified and organized. For the interpretative study, tables enable the connection of cues in a way that helps gain meaning (Cloutier & Ravasi, 2020) and they

ensure that no data is overlooked.

Continuous assessment perspectives and procedures

Participants' understanding of continuous assessment alluded that it involves multiple tasks for frequent assessment. Different formative assessment activities determine the final mark. It involves ongoing assessment for student evaluation and demonstrates students' progress and challenges. It also helps students to build their own foundational practical and reflexive competence.

"Small tasks with feedback help students to build their competence." (Participant A)

"The number of assessment activities varies from three to six with different weighting." (Participant C)

Feedback

The participants mentioned that continuous assessment facilitates and encourages ongoing monitoring and feedback, regular feedback, and timely feedback. Detailed feedback can be given to students, especially the modules with a small number of students. Responding to each student personally, even though it is difficult, is ideal as it becomes impersonal with large numbers.

"The most important thing for a student is a) to pass and b) to pass well, so the more feedback we can give, the more the student will respond. Especially if the feedback is asset-based rather than punitive." (Participant E)

Continuous assessment strategies and tools

Table 1 Continuous assessment strategies and tools (created by researchers, 2023)

Continuous assessment strategies	*Continuous assessment tools*
✓ Assignments ✓ Discussion forums ✓ Observation of practical skills ✓ Oral presentations ✓ Multiple-choice tests ✓ Formal assignments ✓ Written assessments ✓ Journals, short tasks, and short tests	✓ Rubric ✓ Assessment criteria

Effects of continuous assessment on student learning

The aim is to help the students remain focused on their learning. It gives them the confidence to continue learning while being aware of the learning progress and areas where they can excel. The continuous assessment activities indicate the content gap in learning and create progression.

"Thorough engagement of the module content through activities." (Participant D)

Encourages self-directed learning.

Students are empowered to engage in self-directed learning by allowing them to guide the direction of the online sessions/lessons.

"I allow my students to be part of learning by allowing them to take charge of their learning." (Participant I)

"I used the self-organized learning environment pedagogy that offers learners a degree of learning autonomy." (Participant H)

Facilitates cooperative learning and inquiry.

Students are given work to do in groups, as well as tasks or research, and then they have to report back virtually. Alternatively, by conducting workshops and having break-away sessions, the students have to work together and then report back during the plenary session – through peer reviews and encouraging collaborative work through group discussions.

"Assignments force students to do extra research for the answers." (Participant B)

Reinforce student participation in instruction.

Continuous assessment involves continuous engagement with the students through graded and non-graded discussion forums, online Microsoft Teams classes, and assessment activities.

"For me, the discussion method reinforces student participation because they get an opportunity to clarify or seek clarity on issues that are discussed," (Participant F)

Problem-solving activity designed for practical learning.

Concerning participant J, it is important to make sure that the assignment questions set are always practical and relate to the latest trends so that the students can relate to them. Learning becomes practical by giving students scenario-based questions where they can solve issues. Participant K indicated that students work through problems on their own and minimal assistance is provided where there is a need for it.

"Through using scenarios and creating problem-solving questions." (Participant L)

Discussion

Continuous assessment is done through multiple tasks for frequent assessment. It involves assessing the level of

understanding or comprehension of knowledge by a student on an ongoing basis for the entire learning process. The aim is to keep students on track by working on different assessment activities and testing knowledge and skills. Ma and Bui (2022) argue that continuous assessment is characterized by frequent online tests or assignments (weekly), tasks are marked without delay, and cumulative marks account for the course grade. Assessment activities are also given to check if the students are on track with the contents being taught. Through continuous assessment, the lecturer can identify challenges experienced by students and effectively support them to progress in their learning. Continuous assessment has the potential to both support student learning and increase student motivation to learn by providing feedback (Dejene, 2019). Participants argued that continuous assessment uses small tasks designed for feedback.

There are different continuous assessment strategies and tools for grading and non-grading. Singh and Gokool (2018) argue that multiple-choice questions, true or false questions, short answer questions, and matching and comprehension quizzes should all be included in online assessments. Lecturers use discussion forums, online quizzes, tests, assignments, oral presentations, and assignments to assess students for grading and learning. According to Sanchez-Ruiz et al. (2021), continuous assessment fits within constructive alignment by focusing on each student's learning process and learning outcomes. Individual tasks of varying types are posted on various discussion forums for comment.

There are activities that students are expected to do in a discussion forum to check their understanding of the different sections of the module content. Continuous assessment strategies enhance/reinforce student participation in instruction**.** Institutions of higher education can use continuous assessment to improve students' learning and engagement (Rezaei, 2015; Holmes, 2015 cited by Day et al., 2018). It allows students to guide the direction of the online sessions/lessons. Lecturers use the self-organized learning environment pedagogy that offers learners a degree of learning autonomy. Lecturers should act as facilitators to tailor students' proficiency and to promote autonomy and self-construction through tasks and projects (Orak & Al-Khresheh, 2021). This encourages self-directed learning and facilitates cooperative learning and inquiry**.** Most formal online assessments are self-grading such as multiple-choice questions, which save a lot of time for the lecturers and allow them to develop and implement remedial measures (Njihia et al., 2022). To encourage inquiry during learning, lecturers provided students with high-order questions that required investigation.

The use of scenarios and problem-solving questions facilitates practical learning. Through open-ended questions, students are allowed to build from ordinary everyday life situations (contextualization). Lecturers allow students to work through problems on their own and provide minimal assistance where there is a need to do so. Assessment is used at the university level to determine which competencies students should achieve, how students should achieve these competencies, and how the competencies will be evaluated (Sanchez-Ruiz et al., 2021). This summarises the learning experiences while students are provided with opportunities to showcase comprehension. Sanchez-Ruiz et al. (2021) argue that Continuous assessment generates a grade that reflects the level of competency attained.

Conclusion and recommendations

The findings suggest that continuous assessment involves multiple tasks designed for frequent assessment. Lecturers use multiple assessment activities for ongoing assessment to evaluate student learning. Lecturers used different continuous assessment strategies and tools to facilitate learning and assessment. These assessment strategies facilitate learning through the self-organized learning environment pedagogy that offers learners a degree of learning autonomy. The different continuous assessment strategies enhance/reinforce student participation in the instruction. Students are expected to participate in activities in a discussion forum to assess their understanding of the various sections of the module content. This assessment procedure keeps students engaged with their studies throughout the year with minimum support from lecturers.

The practice of continuous assessment with the use of multiple tasks also facilitates practical learning through scenarios and problem-solving. Where students work on their own individually and in groups. High-order and open-ended questions as well as assignments require students to research information and enable practical learning. This process facilitates feedback and learning through collaboration and promotes regular feedback through assignments or assessment activities that build on each other. Struggling students can be identified and supported through continuous assessment activities and feedback. It also involves different continuous assessment strategies and tools for grading and non-grading.

The study recommends that assessment questions allow students to share their life experiences, applying the concepts gained from the module in their daily and practical encounters. This will combat or minimize cheating and the sharing of answers.

Limitations

Limited participants accepted the invitation to share their assessment experiences with the entire College of Education.

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Authorship contribution statement.
Bakang Tshite conceptualized the article, reviewed previous research on continuous assessment, and analyzed the data.

Moffat Majola conceptualized the article and presented the introduction and methodology as well as the findings and determined the conclusion.

Data availability
The data supporting the findings of this study are available in the article and its supplementary material. Raw data that support the findings of this study can be shared as a link request upon request.

Disclosure and conflicts of interest
There is no conflict of interest, and the article presents the findings of the study conducted by the researchers. No financial interests influenced the interpretation of the findings.

References
Abd Halim, S. (2021). Development of Student Attendance and Continuous Assessment Performance Dashboard. *International Journal of Advanced Research in Technology and Innovation,* 3 (3), 111-116. *http://myjms.mohe.gov.my/index.php/ijarti*

Allen, J.W.P., and Bickhard, M.H. (2022). Emergent Constructivism: Theoretical and Methodological Considerations. *Human Development, 1-24*. https://doi.org/10.1159/000526220

Andrade, C. (2021). The Inconvenient Truth About Convenience and Purposive Samples. *Indian J Psychol Med, 43(*1), 86–88. https://doi.org/10.1177/0253717620977000

Appiah, M., & van Tonder, F. (2018). E-Assessment in Higher Education: A Review. *International Journal of Business Management and Economic Research (IJBMER), 9*(6), 1454-1460. www.Ijbmer.com

Aziz, A., Abou-Samra, R., & Aprilianto, A. (2022) Online Assessment of Islamic Religious Education Learning. *Tafkir: Interdisciplinary Journal of Islamic Education*, 3(1),60-76. DOI: https://doi.org/10.31538/tijie.v3i1.114 E-ISSN 2527-8177

Baron, A., and McNeal, K. (2019). Case study Methodology in Higher Education. Hershey: United States of America, IGI Global. Https://locn.gov/2019001864

Bower, M. (2019). Technology-mediated learning theory. *British Journal of Educational Technology, 50*(3), 1035-1048. doi:10.1111/bjet.12771

Chaka, C., & Nkhobo, T. (2019). Online module login data as a proxy measure of student engagement: the case of myUnisa, MoyaMA, Flipgrid, and Gephi at an ODeL institution in South Africa. *International Journal of Educational Technology in Higher Education 16*(38), 1-22. https://doi.org/10.1186/s41239-019-0167-9.

Cloutier, C., & Ravasi, D. (2020). Using tables to enhance trustworthiness in qualitative research. *Strategic Organisation, 19*(1), 113-133. https://doi.org/10.1177/1476127020979329

Day, I.N. Z., van Blankestein, F.M., Westenberg, P.M., and Admiraal, W.F. (2018). Explaining individual success using continuous assessment types and student characteristics. *Higher Education Research & Development, 37*(5), 937-951, DOI: 10.1080/07294360.2018.1466868

De Santos-Berbel, C.; Hernando García, J.I., and De Santos Berbel, L. (2022). Undergraduate Student Performance in a Structural Analysis Course: Continuous Assessment before and after the COVID-19 Outbreak. *Educ. S 12*, 561. https://doi.org/10.3390/ educsci12080561

Dejene, W. (2019). The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus. *Cogent Education, 6* (1), 1-16. DOI: 10.1080/2331186X.2019.1611052

DiCerbo, K., Academy, K., and Alto, P. (2020). Assessment for Learning with Diverse Learners in a Digital World. Educational Measurement: *Issues and Practice, 39*(3), 90–93.

Etikan, I., and Bala, K. (2017). Sampling and Sampling Strategies. Biometrics & Biostatistics International Journal, 5(6), 1-3.DOI: 10.15406/bbij.2017.05.00149

Ezewu, E.E.; Okoye, N.N. (1986). Principles and Practice of Continuous Assessment; Evans Publishers: Ibadan, Nigeria.

Fabian, K., Smith, S., Taylor-Smith, E., and Meharg, D. (2022). Identifying factors influencing study skills engagement and participation for online learners in higher education during COVID-19. *British Journal of Educational Technology, 53*, 1915–1936. https://doi.org/10.1111/bjet.13221

Farrell, T., & Rushby, N. (2016) Assessment and learning technologies: An overview. *British Journal of Educational Technology, 47* (1), 106–120. doi:10.1111/bjet.12348

Gemma, R. (2018). Introduction to positivism, interpretivism, and critical theory. *Nurse Research, 25*(4), 41-49.http://dx.doi.org/doi:10.7748/nr.2018.e1466

Gikandi, J.W., Morrow, D., & Davis, N.E., (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education*, *57*(4), 2333-2351.

Hodgson, V. (2020). Networked learning: Inviting redefinition. *Postdigital Science and Education, 2021*(3), 312-325. https://doi.org/10.1007/s42438-020-00167-8

Holmes, N. (2015). Student perceptions of their learning and engagement in response to the use of a continuous e-assessment in an undergraduate module. Assessment and Evaluation in Higher Education, 40. DOI: http://dx.doi.org/10.1080/02602938.2014.881978.

Ibrahim, A.H. (2012). Thematic Analysis: A Critical Review of Its Process And Evaluation. *West East Journal of Social Sciences, 1* (1), 39-47.

Khan, R.A., & Jawaid, M. (2020). Technology Enhanced Assessment (TEA) in COVID-19 Pandemic. *Pakistan Journal of Medical Sciences Online, 36*(4), 1-3. *https://doi.org/10.12669/pjms.36.COVID19-S4.2795*

López-Tocón, I. (2021) Moodle Quizzes as a Continuous Assessment in Higher Education: An Exploratory Approach in Physical Chemistry. Educ. Sci., 11, 500. https://doi.org/10.3390/educsci11090500

Lowe, T. W. (2015). Online quizzes for distance learning of mathematics. Teaching Mathematics and its Applications. *An International Journal of the IMA, 34*(3), 138–148. https://doi.org/10.1093/teamat/hrv009.

Ma, M., & Bui, G. (2022). Implementing continuous assessment in an academic English writing course: An exploratory study. *Assessing and Writing, 53*.1-15. https://doi.org/10.1016/j.asw.2022.100629

Ma, M., and Bui, G. (2022). Implementing continuous assessment in an academic English writing course: An exploratory study. *Assessing Writing,* 53, 1-15. https://doi.org/10.1016/j.asw.2022.100629

Marriott, P., and A. Lau. (2008). "The Use of On-line Summative Assessment in an Undergraduate Financial Accounting Course." *Journal of Accounting Education 26*(2):73–90. doi:10.1016/j.jaccedu.2008.02.001

Ngui, W., Hiew, W., & Pang, V. (2020). Designing and developing an e-portfolio for Second Language Learners in Higher Education. *International Journal of Information and Education Technology, 10*(5), 362-365. DOI:10.18178/ijiet.2020.10.5.139

Nielsen, M.E., and Skaarup, S. (2021). IT Portfolio management as a framework for managing Technical Debt: Theoretical framework applied on a case study. ICEGOV 2021, October 06–08, 2021, Athens, Greece,89-96.

Njihia, M., Mwaniki, E., and Ireri, A. (2022). Online Continuous Assessment Tests: Experiences and Lessons from Kenyatta University. *Msingi Journal, 6(1), 53-68. https://journals.ku.ac.ke/index.php/msingi/article/view/276*

Orak, D. S., and Al-Khresheh, M.H. (2021). In Between 21st Century Skills and Constructivism in ELT: Designing a Model Derived From a Narrative Literature Review. *World Journal of English Language, 11*(2), 176. https://doi.org/10.5430/wjel.v11n2p166

Pareira, A., Pareira, I., Tinoca, L., Amante, L., de Jesus Relvas, M., Pinto, M.C.T., and Moreira, D. (2009). Evaluating continuous assessment quality in competence-based education online: the case of the e-folio. European Journal of Open, Distance and E-Learning, (), 1-6. http://www.eurodl.org/?article=373

Pereira, A., Mendes, A.Q., Morgado, L., Amante, L., and Bidarra, A. (2007). Universidade Aberta's Pedagogical Model for Distance Education: A University for the Future. Lisboa: Universidade Aberta.

Sánchez-Ruiz, L.-M., Moll-López, S., Moraño-Fernández, J.-A., and Roselló, M.-D. (2021). Dynamical Continuous Discrete Assessment of Competencies Achievement: An Approach to Continuous Assessment. Mathematics, 9, 2082. https://doi.org/10.3390/math9172082

Sharma, I., and Singhal, A., (2014). Research on Online Examination System. International Journal of Engineering Technology, Management and Applied Sciences, August 2014, Volume 2 Issue 3, ISSN 2349-4476

Singh, U.G., and Gokool, R. (2018). Students' perceptions of the Moodle Quiz E-assessment tool in an isiZulu language course. Journal for Language Teaching, 52 (1), 128-150. https://dx.doi.org/10.4314/jlt.v52i1.7

University of South Africa (UNISA) (2019). Assessment Policy. (19/06) Pretoria: South Africa.

Webb, A.S., and Welsh, A.J. (2019). Phenomenology as a methodology for Scholarship of Teaching and Learning research. *Teaching & Learning Inquiry, 7*(1), 168-181. http://dx.doi.org/10.20343/teachlearninqu.7.1.11

Zorio-Grima, A., and Merello, P. (2020). Class-attendance and Online-tests Results: Reflections for Continuous Assessment. Journal of Teaching in International Business, 31(1), 75-97. DOI: 10.1080/08975930.2019.1698394.