



Moodle as a Tool to Reduce Transactional Distance at an Open Distance and e-Learning University

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ABSTRACT

Despite the expansion of e-learning and the adoption of innovative learning management systems to support students, higher education institutions are still struggling under the burden of digital exclusion, hence increasing the transactional distance between lecturers and students. The research was conducted at a South African Open Distance and eLearning university and attempted to (1) understand how the Moodle site is organized to influence transaction distance, (2) identify students' perceptions of the Moodle site to enhance their academic writing skills, and (3) identify if Moodle is an enabler or disabler to their learning. This article uses a qualitative participatory action research design and draws on the theory of transactional distance. Using observations, open-ended evaluation questions, and a focus group discussion, the study found that students appreciated the communication and interaction facilitated by the lecturers. Despite the challenges that students experienced, the transactional distance was reduced between lecturers and students. Although the findings of this study cannot be generalized on a broader scale, findings are in line with similar studies, amplifying the critical role of the perceptions and challenges of first-year students in HEIs to bring about the required change.



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INTRODUCTION, BACKGROUND, AND CONTEXT

Universities all over the world are switching from in-person teaching and learning to e-learning platforms as a result of the spread of the coronavirus (COVID-19) pandemic. Consequently, student-based learning activities began to replace lecture-based pedagogies at higher education institutions (HEIs) (Gamage, Ayres & Behrend, 2022; Sevnarayan, 2022a, b, c; Singh, 2022). The unprecedented change in teaching and learning forced lecturers to adopt new ways of teaching content and implementing teaching and learning activities. Adapting to pandemic constraints on physically interactive learning, which have prohibited the majority of traditional modalities of education and evaluation, has been particularly challenging for educational institutions and Open Distance e-Learning (ODeL) institutions (Byrnes et al., 2021; Rahayu et al., 2022; Shalhoub & Kunt, 2021).

Research envisages distance education and ODeL as an innovative learning approach (McClure & Williams, 2021; Saidi et al., 2021; Sevnarayan, 2022a); its flexibility and cost-effectiveness, when compared to conventional face-to-face universities, are highly appreciated by HEIs (Schreiber & Jansz, 2019; McClure & Williams, 2021). Distance exists geographically in ODeL learning between the university, the lecturers, and the students. If we assume that distance learning is synonymous with ODeL, ODeL courses/ modules are delivered online to

overcome the instructional gap. In line with this assumption, Kintu and Wanami (2019, cited in Shalhoub & Kunt, 2021) claim that the terms distance education, e-learning, web-based training, Open distance learning (ODL), and ODeL are often used interchangeably. This claim prompts the researcher to define ODeL as the use of online learning approaches to enable various types of interaction and conversation that can close the gap between lecturers and students synchronously and asynchronously. However, according to Krishnan et al. (2021), online learning has the unsettling potential to become more teacher-centered than learner-centered. According to Michael Moore, “transactional distance” is a factor that can be attributed to the limited face-to-face interaction in ODeL (Moore, 1993). The theory of transactional distance is viewed as the psychological distance between lecturers and students (Moore, 1993; Quong et al., 2018) as it views “distance as a social and communication gap” (Swart & Macleod, 2021, p. 4) – a space for potential miscommunication between lecturers and students. The learning management system (LMS) that a university employs is one technique to bridge this transactional gap, and it is the subject of this article.

In HEIs, learning management systems (LMSs) are software programs that allow lecturers and students to record, monitor, manage, and report learning activities (Ellis, 2009; Rahayu et al., 2022). Through the synchronous or asynchronous communication elements of the LMS, the learning process is carried out. By offering e-learning opportunities, LMSs enable interaction between conventional teaching methods and digital learning materials (Singh, 2022). There are around 561 LMSs accessible globally (Gamage, Ayres & Behrend, 2022). Edmodo, Modular Object-Oriented Dynamic Learning Environment (Moodle), Massive Open Online Courses (MOOCs), and Google Classroom were the LMSs that were studied and used the most from 2015 to 2022 (Gamage, Ayres & Behrend, 2022; Setiadi et al., 2021; Singh, 2022). Comparisons of various LMS types are uncommon, but comparisons of LMSs like Moodle, Sakai, SumTotal, Blackboard, Canvas, and ATutor can be found in the literature (Al Hawari et al., 2021; Xin et al., 2021). Moodle is the most widely used and well-known open-source LMS (Al-Hawari et al., 2022; Gamage, Ayres & Behrend, 2022). Moodle is widely used in many HEIs throughout the world and has a large selection of courses that are available in many different languages (Al Kurdi et al., 2020; Al-Nuaimi & Al-Emran, 2021; Quansah & Essiam, 2021; Romero-Sánchez & Barrios, 2022; Taamneh et al., 2022). Moodle is a cloud-based open-source LMS that has over 294 million users and 36 million courses in use in 246 countries (Moodle, 2019; Moodle Project, 2021) – which makes it one of the biggest LMSs. Despite Moodle's increasing popularity, there is currently little research on its users' viewpoints and difficulties, particularly in the context of distance learning (ODeL), notably among first-year students (Muschamp et al., 2021; Quansah & Essiam, 2021). Technology adoption can be researched at the organizational or personal level, according to Al Kurdi et al. (2020). To determine whether Moodle can be utilized as a tool to reduce the transactional distance in a distance learning university, this study concentrated on the personal level. In addition, it sought to understand first-year students' perceptions of Moodle in learning academic writing skills, in one module under study. Michael Moore's idea of transactional distance served as the study's foundation (1993). This study examined whether Moodle may be utilized as a tool to reduce the transactional distance in a South African ODeL institution, building on earlier research (Al Kurdi et al., 2020; Muschamp et al., 2021; Quansah & Essam, 2021).

As one of the oldest and biggest institutions in Africa, the university of South Africa (Unisa) uses an ODeL model to serve students from diverse socioeconomic and linguistic backgrounds. The goals and objectives of Unisa's 2016–2030 strategic plan position the institution as the premier provider of ODeL in teaching and learning in Africa and beyond the world (Unisa, 2018). The goal of this study is to better understand how students experience and view the English for Academic Purposes (ENG321) Moodle LMS module, which is housed in the English Studies Department of the College of Human Sciences. The module, which is a requirement for the Bachelor of Arts degree, enrolls about 20,000 students each semester and aims to help students improve their academic writing abilities. Many students repeat the

module between two to eight times—and occasionally even more—which raises serious concerns. To avoid online student isolation and dropout rates, particularly post the pandemic, it is suggested that lecturer-student engagement through the LMS is crucial. Student engagement may have a significant role in keeping online students at university, which might reduce dropout rates and raise graduation rates (Banna et al., 2015). This article analyses if Moodle can be used as a tool to reduce the transactional distance between students and lecturers in one South African ODeL university. The article addresses three main research questions:

- (1) How is the ENG321 Moodle site organized to influence transactional distance?
- (2) What are students' perceptions of the Moodle site to enhance their academic writing skills?
- (3) Do students experience Moodle as an enabler or disabler of learning?

LITERATURE REVIEW

According to studies globally, Moodle has assisted students who speak English as an Additional Language (EAL) to achieve better results in their English Modules (Rahayu et al., 2022). In Indonesia, most English students, according to Sinaga and Pustika (2021), displayed a favorable attitude toward Moodle, which assisted in triggering their motivation and performance. At a university in Vietnam, Truong (2021) noted that students' speaking skills were significantly improved due to their interaction with Moodle, which also motivated them to speak more effectively. Researchers have also noted that there are many challenges with the online Moodle platform such as students' poor attendance on live streams, insufficient engagement with learning activities, and cheating (Tuah & Naing, 2021). Only 32% of the basic isiZulu cohort of 2019 at the University of Kwa-Zulu Natal in South Africa completed all of the online formative activities, according to Naidoo (2020). According to a study done by Dlamini and Naidoo (2022) at the University of Zululand, the digital divide among first-year students is growing as more of them switch to online education. According to reports, some students did not have access to technology, others had trouble using their devices, there was no zero-rated data available to use Moodle, the students lacked Moodle training, and some students resided in areas with poor internet connectivity. Concerning lecturer perceptions, Ndlovu and Mostert (2018) found that Moodle allowed in-service teachers to engage in synchronous and asynchronous discussions with colleagues and facilitators to experience social, cognitive, and teaching presences. Similar to experiences reported by students in Dlamini and Naidoo's (2022) study, Ndlovu and Mostert (2018) reported that lecturers noted that Moodle was slow in speed and unaffordable cost when available to students. As this study is also conducted in a South African setting, this participatory action research study attempts to comprehend how transactional distance might be decreased by examining the students' experiences with Moodle in an Academic Writing module in an ODeL university.

ON REDUCING TRANSACTIONAL DISTANCE THROUGH THE MOODLE LMS

According to Michael Moore's (1993) notion of transactional distance, pedagogy is more important than the physical distance between students and lecturers in determining transactional distance. The psychological and communicative gaps between lecturers and students are a focus of the transactional distance theory. Zhang (2003) added additional intricate and multidimensional variables to Moore's hypothesis. She described transactional distance as the physical, cognitive, social, psychological, and behavioral separation between lecturers and students. Transactional distance has been widely used as a framework to study interaction in online educational situations and has been embraced as a global paradigm in online education research. Lecturers and students must bridge this interactionist framework, but it also presents a potential opportunity for misunderstandings between the lecturers and students and the material that they are learning. This distance or space is required to be reduced or shortened, ideally. This approach was appropriate to traditional face-to-face instruction, but with ODeL, because of extraordinary conditions and pandemic-related problems, there is a

much greater distance between students, lecturers, and the content knowledge they are studying. Since ODeL students felt more isolated, demotivated, and left the system, transactional distance is more difficult (Moore, 1993). Moore recommended that the ODeL stakeholders take into account the following three factors: structure, dialogue, and autonomy (Moore, 1993; Zhang, 2003) in their pedagogies.

Structure refers to how lecturers organize their instructional design, methods, and tools in their LMS, while dialogue refers to how lecturers and students interact during the ODeL experience. The level and type of student accountability and self-direction are referred to as autonomy. Figure 1 below shows that the more structure and less dialogue a lecturer exhibits, the greater the student's autonomy would be; this results in a higher transactional distance between the students, their lecturers, and their learning.

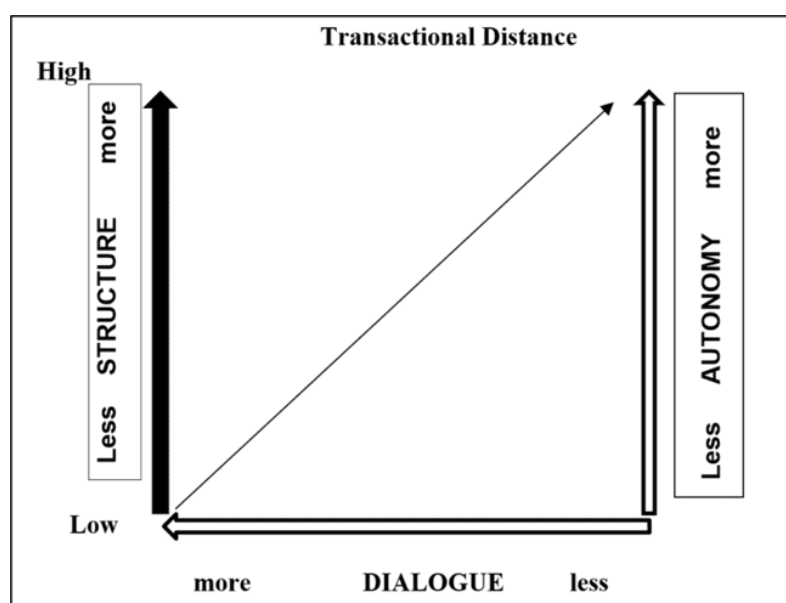


Figure 1. An increase in Moore's (1993) theory of transactional distance

The transactional distance can be viewed as a continuum spanning from high to low because it is relative. Higher teaching presence, as well as student interpersonal connection, sharedness, and perceived learning, are characteristics of a module with minimal transactional distance (Huang et al., 2016). The theory is dynamic, not static, and it changes based on the instructional situation, which is another crucial point to remember. Structure and autonomy are the key ideas of transactional distance, which is the subject of this article. According to Moore (1993), a module with a high level of structure will not be as sensitive to the needs and preferences of the student, increasing transactional distance. Other researchers (Huang et al., 2016), however, have discovered that high structure might promote student dialogue and, consequently, reduce transactional distance. Asynchronous resources, which are available on the LMS and include discussion forums, podcasts, vodcasts, and PowerPoint presentations among others, give students more time to organize their studies, access module content, and interact with the resources and one another. This can be particularly effective in fostering dialogue and thereby reducing transactional distance. Lecturers have numerous options to generate opportunities for engagement and discourse (Kgabo, 2021; Sevnarayan, 2022a; Quong et al., 2018). Social media and discussion boards can encourage dialogue between students and lecturers, which correlates to a decrease in transactional distance. Transactional distance may be decreased by distance education institutions with the use of multimodality of interactions, such as the incorporation of additional eLearning technologies on their LMSs. Therefore, for lecturers to influence teaching and learning positively, they must possess pedagogical skills. These skills would enable them to efficiently organize their learning materials and thereby reduce

transactional distance. For an online module to be successful, the lecturer must provide chances and settings for student participation, promote conversation and social contact, and use “appropriately” structured LMSs.

RESEARCH METHOD

Research Method

This qualitative participatory action research (PAR) study understands if Moodle can reduce the transactional distance between students and lecturers in an ODeL institution. This study sought to provide in-depth experiences and understandings of lecturers and students in the ENG321 module. Using an observation schedule, qualitative online evaluation questions, and focus group discussions, this article investigates if the ENG321 Moodle LMS site can be used as a tool to reduce the distance between lecturers and students.

Research Design

The PAR design was used for this study because it entails researchers and participants cooperating to comprehend a problematic situation and improve it (Participatory Methods, 2018). Dewey (1997) argued that in a PAR context, researchers should develop new knowledge and skills in line with their pedagogies; for this to occur, it is argued that researchers should encourage the use of cooperation-based learning, which would be advantageous to both lecturers and students and result in ‘best practice’. Since lecturers are acknowledged as having power and advantage in educational contexts, PAR studies encourage lecturers or researchers to actively participate alongside other participants, like students. In this study, the four action steps listed below were utilized.:

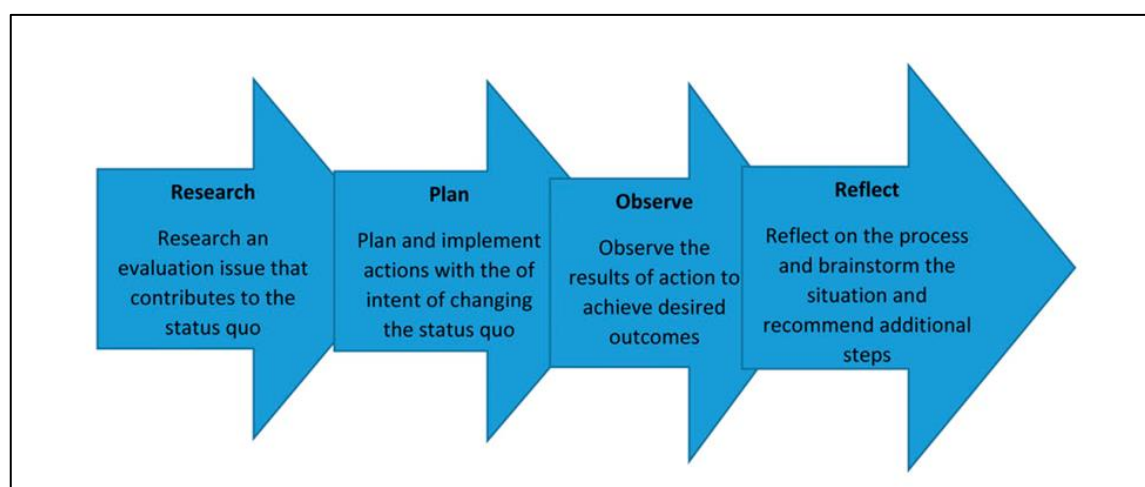


Figure 2. Participatory action research steps

The researcher understood that Moodle is new to Unisa to both lecturers and students and realized that there is a gap in the teaching of academic writing in the module. Through research, and the researcher’s studies (Sevnarayan, 2022a, b, c, d; Sevnarayan & Mohale, 2022), it was identified that students respond to technology when it suits their needs. The entire site was planned with the students in mind- particularly first-year students who speak English as an additional language. The researcher designed the site to be colorful, inviting, and interactive. Observations of the site and the student activity in the module were then made throughout the semester. The researcher then evaluated students on their perceptions of the site via qualitative evaluation questions (See Sevnarayan 2022d). A focus group discussion was administered to verify students’ perceptions of the implementation of the Moodle site to enhance their academic writing skills. The researcher then reflected on her findings and made recommendations to enhance her pedagogy in the subsequent semester.

Participants and Sampling

A little over 3,000 of the 16,000 students that participated in semester one of 2022 responded to the online evaluation questions that were presented on the Moodle "evaluation questions forum". Random sampling was utilized to choose twenty responses from the students' evaluation responses (12 female and 8 male) to reflect the whole student population to respond to the second research question (Cohen, Manion & Morrison, 2007). Twenty students were chosen at random for the focus group discussion and invited to the researcher's meeting through a Microsoft Teams session to address the second research question.

Research Instruments

To answer the study's key research questions, three research instruments were used: An observation schedule of module data, open-ended online evaluation questions were posted on Moodle for students and a focus group discussion was held with the students. In an observation schedule, the observer plays a passive, non-intrusive position, only noting the incidence of the factors under study (Cohen, Manion, & Morrison, 2007). The following sequence of observations was utilized to comprehend how the 2022 ENG321 Moodle site is structured:

Structured observation schedule
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- | |
|---|
| <ol style="list-style-type: none">1. How is the Moodle site organized to enhance student interaction?2. What sections on the Moodle site promote interaction and appeal? |
|---|

Online qualitative evaluation questions were posed in a forum under the "evaluation questions" section of the ENG321 site. On Moodle, free-form responses were encouraged through the use of open-ended questions (Sevnanarayan, 2022d). To fully participate in PAR, both students and lecturers must be willing to share their perspectives on how their module is being taught, as well as their own beliefs and experiences. To avoid data and analysis oversaturation and to better support the qualitative nature of this work, just 20 replies from the group were chosen. This article focuses on the lengthy descriptions provided by the students in response to the post-evaluation questions. Following is a list of the two questions from the post-evaluation questions that were asked and will be examined and discussed in this article:

Open-ended evaluation questions:

- | |
|---|
| <ol style="list-style-type: none">1. What are your experiences with the ENG321 Moodle site?2. Discuss the strengths and weaknesses of our Moodle site. How does it enable your learning? |
|---|

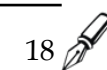
The 20 students were interviewed in a focus group to confirm what they had said in response to the open-ended evaluation questions, ensuring the validity of the data. The nine students who participated in the focus group were made up of six females and three males. The one question that will be analyzed in this article is shown below:

Focus group question

- | |
|--|
| <ol style="list-style-type: none">1. Is Moodle an enabler or disabler to your learning? Discuss. |
|--|

Thematic analysis, which aligned with the research questions, was used to analyze the data. The following themes emerged:

- Observations of the ENG321 site: A reduction of transactional distance?
- students' perceptions of the ENG321 Moodle site; and,
- students' challenges on the ENG321 Moodle site.



RESULTS AND DISCUSSION

Observations of the ENG321 site: A reduction of transactional distance?

The 2022 ENG321 Moodle site was observed in line with two observation questions, noted in the section above, which are presented and discussed below.

The Organisation of the Moodle Site to Enhance Interaction

On accessing the ENG321 site, the students are greeted by an interactive welcome message. The welcome message introduces students to the Academic Writing module and discusses the lecturers' expectations of the students (See Figure 3 below). The welcome message includes memes that are meant to ease students into the module.

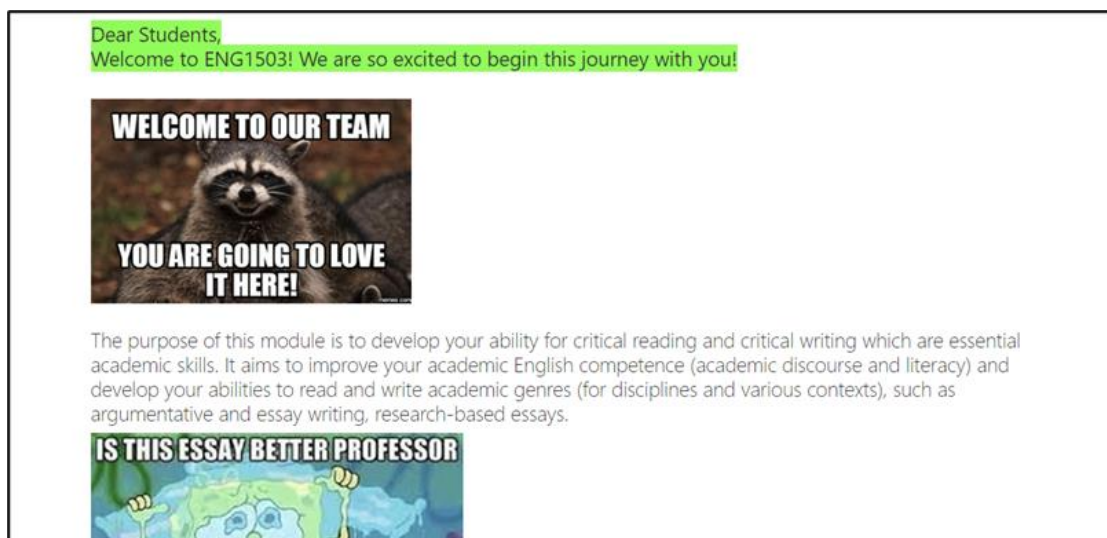


Figure 3. Welcome message on the ENG321 site

Following the welcome message, the students are introduced to their lecturers via a 3-minute video (See Figure 4). In this video, the researcher requested each of the ten lecturers and two module administrators to introduce themselves and welcome students to the module. The video was taken at each lecturer and administrator's settings and the video clips were compiled into a video and uploaded onto the site.

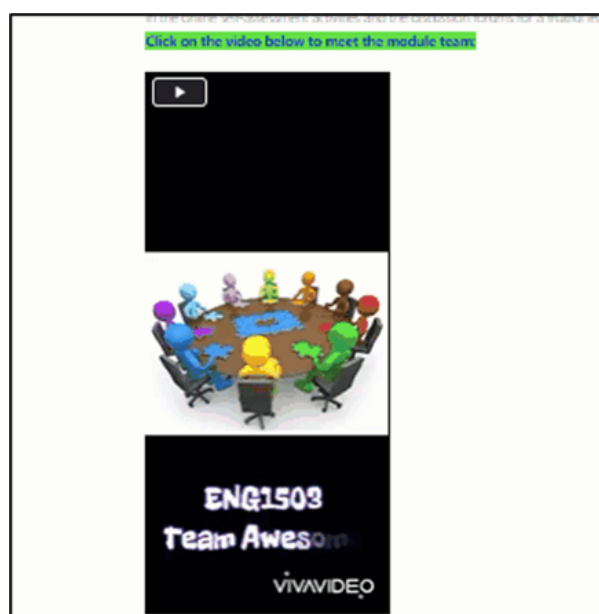


Figure 4. Module video to introduce the ENG321 team

Following the video, the ENG321 Moodle course format is organized using the tile format as seen in Figure 5 below.

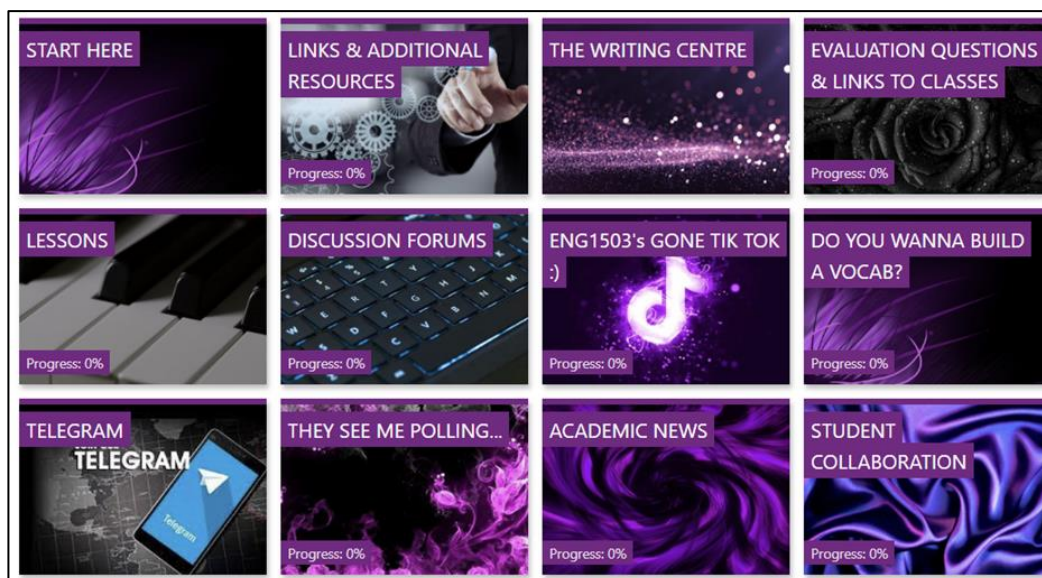


Figure 5: Sections as they appear on the ENG321 site

The learning material and content for the ENG321 Moodle LMS were planned, organized, and designed by the researcher as an active participant in the study. The site is organized according to sectional tiles, as seen in Figure 5 above. At the click of a button on a tile, the viewer is greeted by an introduction and then taken to the module content via forums, polls, folders, PowerPoint presentations, links, podcasts, and vodcasts, amongst other resources. On observing the ENG321 Moodle site, it was found that the site was organized to enhance interaction between lecturers and students. This was done through the style of the welcome message, which was casual, humorous, and accommodated students. Using a casual style of writing to appeal to first-year EAL students in an Academic writing module (Rahayu et al., 2022) certainly reduced the transactional distance between lecturers and students (Moore, 1993). In addition, the use of the welcome video with the faces and voices of all lecturers and administrative staff aimed to narrow the widening digital divide (Dlamini & Naidoo, 2022) between lecturers and students. In addition, the course format of the ENG321 site (Figure 5) is organized in that a student who comes into the site for the first time, knows exactly where to start 'start here'. All the information in the module is organized into 12 tiles on the module site. In this way, students know where to access information about the course (Tuah & Naing, 2021). It can be argued that the site was organized to decrease transaction distance through an increase in dialogue from the lecturers and the organization and structure of the Moodle site (Moore, 1993; Zhang, 2003; Quong et al. 2018, Swart & Macleod, 2021).

Sections on the Site that Promote Interaction

The section on the site that promote interaction is the 'writing center', which is made up of a series of 10 workshops, consisting of 10 podcasts and 10 vodcasts teaching academic writing skills. For each academic writing skill, for example, how to construct a paragraph, a podcast, and a vodcast is posted to teach this skill. The next section that promotes interaction, and is illustrated in Figure 6 below, is the 'evaluation questions and links to classes' section. In this section, students have access to a series of forums in which evaluation questions are asked concerning the module. For example, if a learner missed a question and answer (QnA) session or a live session, they can access the recording and resources of this class by clicking on the 'QnA session for Assignment 02' section below. In this forum, students will be greeted by about 10 evaluation questions, which attempt to understand how students perceived the class and how it can be improved.

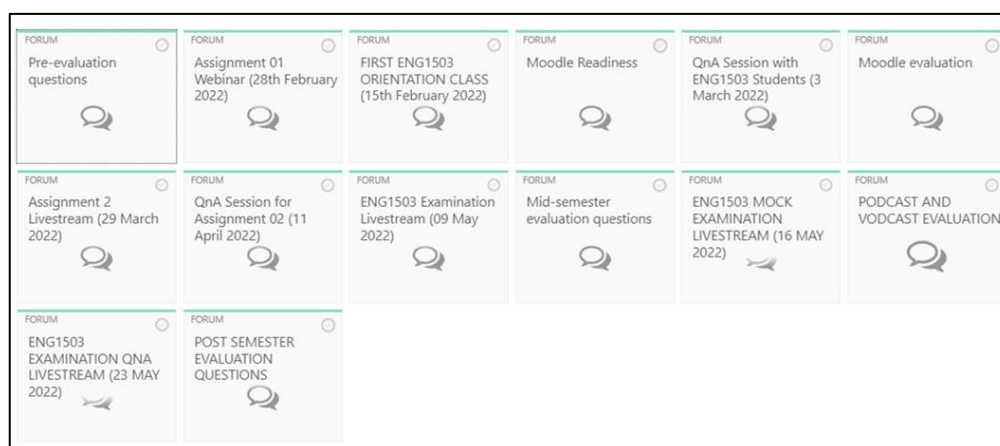


Figure 6. The 'evaluation & links to classes' section

The lessons section is made up of 16 lessons as shown in Figure 7. Each lesson includes an interactive textual lesson, which includes images, tables, and figures related to the content to make the content more relatable and understandable to students. This is then followed by quick short questions that are expected to take a student about 5-10 minutes to complete. The memorandum for each lesson is included as an attachment in each lesson; the student can compare their answers to the model answers when they are done with each lesson.

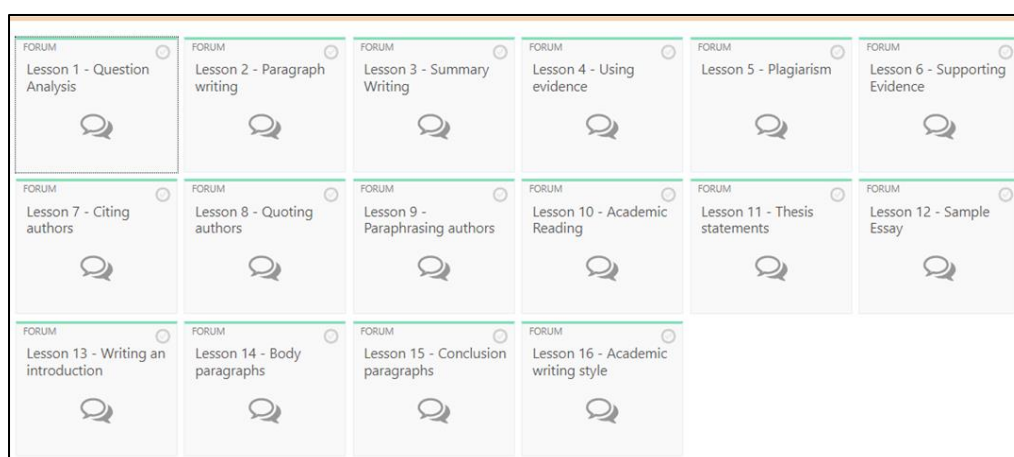


Figure 7. The lessons section on the ENG321 site

The discussion forum, as seen in Figure 8, creates a lot of engagement between the students and the lecturer, and the students themselves. In the 'Hot questions' forum that is shown below, students have the opportunity to ask lecturers any question regarding the contents of the module, and lecturers and other students respond to them.

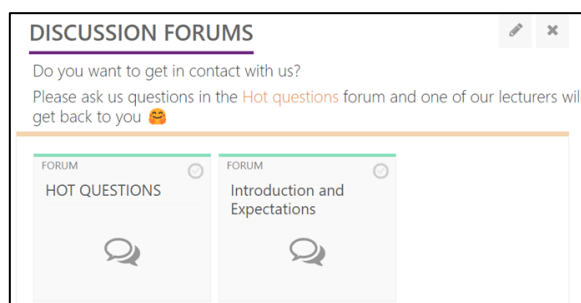


Figure 8. The discussion forum on the ENG321 site

In the 'ENG321's gone Tiktok' section, as seen in Figure 9, the researcher has posted 30-second motivational videos from Tiktok that have nothing to do with ENG321. The purpose of this section is to motivate and encourage our students to keep going and to believe in

themselves. The comments section on each of these motivational forums in Figure 9 is filled with student engagement and interaction.

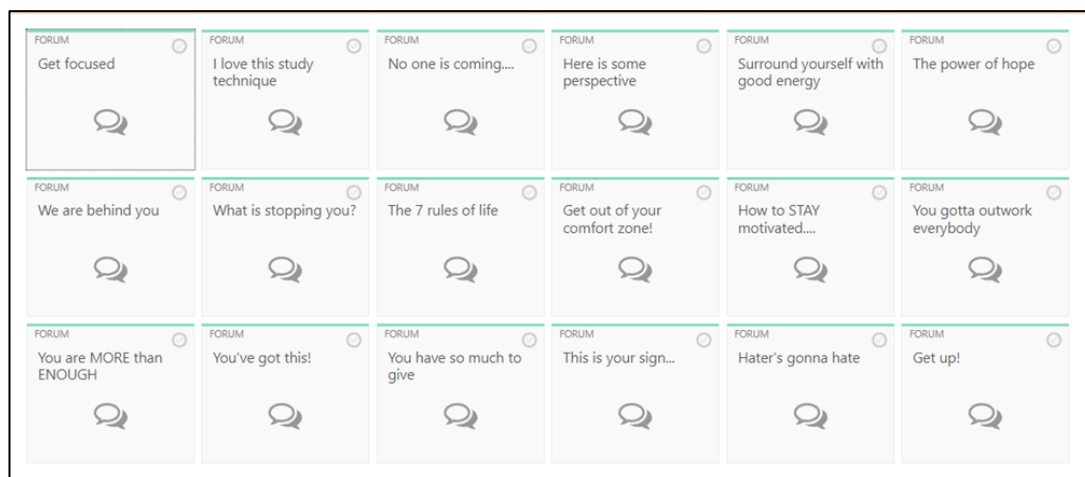


Figure 9. The ENG321s gone Tiktok section

Another section that creates interaction on the ENG321 site is the ‘They see me pollin’ section as shown in Figure 10 below. This section aims to gather information from students about our pedagogic practices. These polling sections were set up using the ‘choice’ function on Moodle. The students interact on these polls and show us what lecturers are doing right, what we need to improve on, and what needs attention.

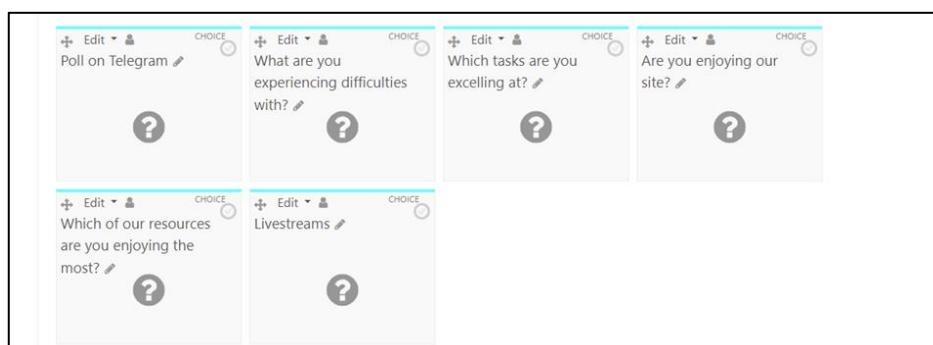


Figure 10. The ‘they see me pollin’ section on the ENG321 site

The collaboration section was created on the site to enable peer support in the module. Figure 11, shows six subsections in which mock essay questions were posted as examination preparation. The students had to respond to each of these essay genres and then had to provide peer feedback on other student’s essays.

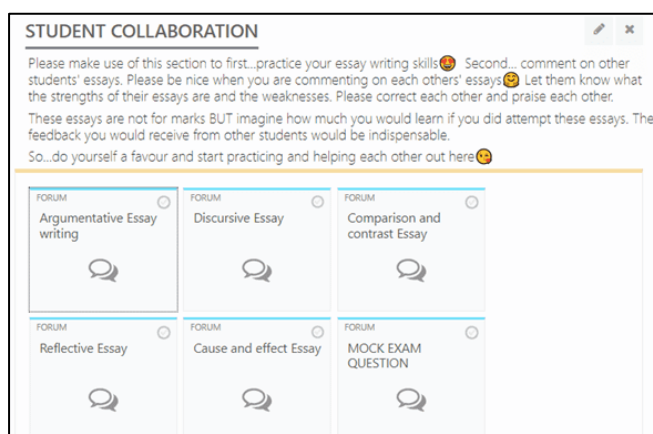


Figure 11. Student collaboration on the ENG321 site

Based on Figures 6-11, it can be observed that the ENG321 site aimed to create interaction between the lecturers and students, students and students, and the students and their content, using various activities on the site. They are adequately supported by their lecturers and transactional distance is thus decreased as shown in Figure 12 below.

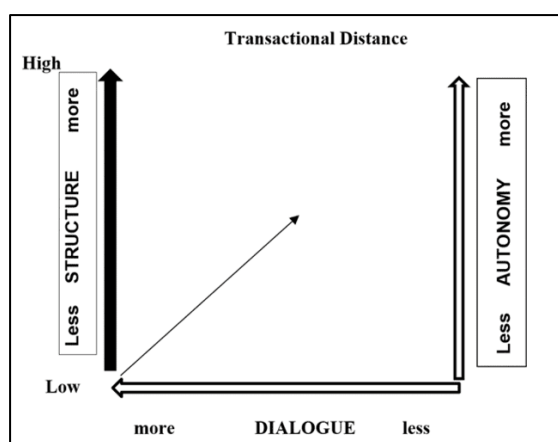


Figure 12. A decrease in transactional distance

The 'evaluation & links to classes' section was created to post the live recording sessions of previous classes. Students were able to interact with their lecturers by letting us know what they liked and did not like about the lesson and how the lesson could be improved on. In a sense, students were given the chance to drive the pedagogic reality of the module. The comments section in each of the lessons is filled with students' responses to the lessons. In the 'Hot questions' forum students were allowed to interact with their lecturers and with each other. The lecturer using the motivational Tiktok videos showed emotional presence. The comments section on each Tiktok video is filled with students' voices where they thank the lecturers for the videos and they motivate each other to never give up, despite all the challenges they go through in their personal lives. This study displays similar results to other studies, which argue that e-Learning use on the LMS may be beneficial in helping students develop themselves (Al Kurdi et al., 2020; Al-Nuaimi & Al-Emran, 2021; Quansah & Essiam, 2021; Romero-Sánchez & Barrios, 2022; Taamneh et al., 2022). The polling section on the site allowed students to let us know what they like most about the site and the module. We used the results from this section to improve the module. Finally, the student collaboration section on the site facilitated the most interaction. This is because this section was created in preparation for the examination. The results show that e-Learning use on the LMS may be beneficial in helping students develop themselves. Student interaction, as created in the ENG321 module, may be an important factor in the retention of online students, which may lead to a decrease in attrition and an increase in retention in distance education universities. There is a move away from teacher-centredness (Banna et al., 2015; Krishnan et al. 2021) and there is a move toward student-centredness as the students seem to drive the direction of the module. Regardless of the limited face-to-face lessons in the module, the sections on the site that create interaction aim to reduce the transactional distance in the module. This is achieved by an increase in dialogue between the students and a well-structured module site. According to Moore (1993), when there is an increase in dialogue and a decrease in structure, there is also a decrease in the autonomy that is placed on the students. This means that online students do not have to work on their own to realize the goals of the module.

Students' Perceptions of the ENG321 Moodle Site

Three open-ended online evaluations were posted on the ENG321 LMS to understand students' perceptions of the Moodle site. Two themes emerged from the open-ended evaluation questions, which are discussed in this section:

- Students' experiences of the ENG321 Moodle site
- Strengths and weaknesses of the Moodle site

Students' Experiences of the ENG321 Moodle Site

Twenty open-ended evaluations were randomly selected from the evaluations that were completed by students. The following are a few verbatim responses taken from the site, which echo what other students have noted:

[The site] is fun, educational, and knowledgeable. It is one of the most interactive sites of all my subjects. Unlike other modules, the lecturers talk to us all the time. I have been enjoying some of the study materials, assignments, and site structure. I have absolutely been enjoying, the memes, TikTok, and podcasts vibe too (Liam, 2022 open-ended evaluation questions)

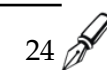
This is my first year experiencing the Moodle app at Unisa. I think it is a step in the right direction in terms of revolutionizing the way we study. I also think it is quite proactive of the lecturers to have made the initiative to communicate with us. Do our lecturers even sleep? I got a response at 11 pm! The system crashes often need a lot of work in terms of capacity but I enjoy the layout of the app and also how we can reach the lecturers (Esme, 2022 open-ended evaluation questions).

My experience with the ENG321 Moodle site has only been a pleasant one. The lecturers are so responsive and it feels like I am in a classroom. The site is well-organized, easily accessible, and extremely informative. The site is always up to date and the ENG321 team is always posting new resources, tips, and messages to motivate us (Levi, 2022 open-ended evaluation questions).

From the above responses, it is clear that the students experienced the ENG321 site to be 'fun', 'informative', 'interactive', 'pleasant', and 'motivating'. The participants all had positive experiences of the site as revealed by the findings above. These findings are similar to the findings of Truong (2021) and Sinaga & Pustika (2021) who argued that most students in their English modules showed a positive attitude to learning through Moodle; this attitude assisted in triggering their motivation and performance. This article does not report on students' performance but can attest that the organization and design of the Moodle site did increase students' motivation (Levi, 2022 open-ended evaluation questions). One student (Esme) noted that we have revolutionized the way students study due to how we communicate with them. In the theory of transactional distance, Moore (1993) focuses on the quality of student interaction rather than the frequency. This study did not explore the frequency of student-lecturer interaction but the findings of the study show that participants were able to get individualized attention from lecturers when it was needed (Zhang, 2003) and despite the 'system crashes' and instability of Moodle itself, students were aware of and appreciated the constant lecturer presence on the site. The students noted the consistent communication in the module 'unlike other modules' and one student 'got a response at 11 pm'. The lecturer was an active participant with students in the module and at the end of the semester, it felt as if a community of inquiry had been formed. The increase in dialogue in the module once again lowered the transactional distance in the module (see Figure 12). It can be argued that an increase in lecturer presence aids students' satisfaction in a module.

Strengths and Weaknesses of the Moodle Site

From the open-ended evaluation questions, the students reported on the varying degrees of strengths and weaknesses of the Moodle site. Below are some of the responses that represent other students' voices in the ENG321 module:



The site allows us to easily access our work regardless of the day or time. The site is also free, allowing us to access our work without financial implications or consequences. For these main reasons, the site improves our learning experience by making our work more accessible. Moreover, the site uses helpful features such as the calendar, push notifications, reminders, and message tools which allow us to complete our assignments better, and have healthy communication with our lecturers and fellow students. I just don't like how slow and when it crashes. I was unable to submit assignment 1 when I wanted because of this (Mark, 2022 open-ended evaluation questions).

The strength of the site is how it is set up. It is so easy to navigate and has everything we need to succeed in the module. The main weakness of the site involves the technical aspect of the site shutting down or undergoing maintenance, we are unable to efficiently access, complete and submit our assignments. This causes frustration, anxiety, and stress. However, these shutdowns do not last very long and often the issues are eradicated in a timely fashion (Britney, 2022 open-ended evaluation questions).

None...no challenges. The strengths are everything because if there is a problem we get an announcement and this reassures us that we are not alone. This site is structured very well and makes it very easy for us as first-year students. I wish my other modules were as interactive as this one (Suneer, 2022 open-ended evaluation questions).

Concerning the strengths of the module, the students reported that Moodle is 'free' as Unisa uses reverse billing. Most students also appreciated the useful features on the Moodle site like the discussion forums, which enabled them to communicate with their lecturers, the calendar tool, and the ease of access to all the resources on the site. From a transactional distance perspective, the various interactions that emerge during the Moodle course activities in online or offline modes of learning may potentially reduce transactional distance. Another element that needs to be considered is the ENG321 course structure. How the researcher designed and structured the Moodle site and the way it links with the module's learning objectives, pedagogical methods, learning resources, and mode of learning may reduce transactional distance. Moore (1993) pointed out that the level of the course's rigidity or flexibility characterizes the course structure, which influences the extent of transactional distance in a context. From the students' responses above (Suneer, 2022 focuses on open-ended evaluation questions), it is clear from observations in earlier sections and the students' responses that the course is flexible for students and not rigid which enables an interactive learning environment. When interaction occurs through a flexibly structured module, then dialogues can be maintained between lecturers and students, which decreases the transactional distance.

Many students reported on the weaknesses of the module. Very few students noted that they had "no problems with the site" (Shannon, open-ended evaluation questions). From the responses captured at the beginning of this section, students reported that Moodle is 'slow', and undergoes regular 'maintenance' that causes downtime. Many students reported that they were unable to submit assignments during the downtimes - this was their biggest concern with Moodle. It is not easy to reduce transactional distance when there are issues that are beyond the control of lecturers, such as those mentioned by the students. The volatility of Moodle can be overcome if the lecturers try to reduce the psychological gap between them and students by encouraging and motivating students (Moore, 1993). Suneer noted, "If there is a problem we get an announcement and this reassures us that we are not alone". From this response and the

observations in earlier sections, it is clear that the reduction of isolation and the psychological gap between lecturers and students reduced transactional distance in the module.

Moodle Implementation: An Enabler or Disabler of Learning?

To answer the third research question, which was to understand if Moodle is an enabler or a disabler of learning, one focus group question was analyzed to answer this research question. The following responses are presented to understand students' thoughts on Moodle implementation:

It is an enabler; I can even access the app without data making it easy to learn. Loads of classes, explanations, recordings, etc. Very useful (Sivash, 2022 focus group discussion).

It is an enabler to learning because I can do sample exercises that help when it comes to creative writing in this Module. In addition, I can access my study materials in a faster and easier way especially when the server is down on the main MyUnisa site (Nola, 2022 focus group discussion).

It is an enabler unless it stops working (Mark, 2022 focus group discussion).

From the focus group discussion held with students, most students said that Moodle is an enabler of their learning. The students who called Moodle an enabler noted that it is 'free' as it does not cost data, the site is filled with interactive resources, which encourage them to learn, and they can access the resources when Moodle is down. The responses from the focus group highlight the students' satisfaction with Moodle as they regard it as an enabler of their learning. As more and more institutions move towards online learning through LMSs, transactional distance becomes a problem for lecturers, students, and HEIs, especially during the pandemic. Moodle as an LMS can help lecturers reduce the LMS by creating courses that are not rigid with the inclusion of ample interaction and communication between stakeholders. From the findings, none of the students had any problems with interaction and communication with their lecturers or the rigidity of the course. This shows that lecturers are responsible for creating an interactive environment through a well-structured LMS. If this is done, transactional distance will not increase in the module, despite the technical glitches that come with Moodle such as 'network connectivity', which is usually resolved after a few hours. Nevertheless, the presence of transactional distance, through Moodle volatility and network system maintenance, usually increases students' learning autonomy (Moore, 1993), but in terms of enhancing students' competencies, especially in the aspect of interaction and communication, it is certainly something which needs to be deliberated.

LIMITATIONS AND ETHICAL CONSIDERATIONS

There are restrictions to this study, even though the theory of transactional distance guides the deductions and inferences made in this article. First off, a quantitative analysis might have enhanced the data collected because this study was conducted in a module with over 16,000 students. Second, this study's timing may be too early. Since Moodle was only introduced in February 2022, a longer-term, more thorough evaluation is required. The university's ethics committee reviewed the application and approved it before the research's conduct (NHREC Registration Ref#: 2021 RPSC 050).

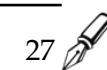
CONCLUSION

This study investigated if Moodle can be used as a tool to reduce the transactional distance at an ODeL institution in South Africa. The results show that (1) the creation of an interactive LMS has decreased transactional distance in the module, (2) The module was designed to suit the student's needs and hence facilitated an interactive learning environment and (3) students perceived Moodle to be an enabler to their learning. It was noted that these results are possible

when lecturers create an interactive multimodal LMS site. It is recommended that lecturers structure their LMS sites to focus on the student. The lecturer should create many opportunities on the site for appropriate dialogue and interaction. Researchers have a lot of work to do from a pedagogical standpoint, especially in understanding course structure to help with lecturer-student and student-student contact to lessen the transactional distance. Additionally, there is a need for teaching and learning methodologies to enhance the online skills of lecturers and students, as well as for a critical review of the online activities designed for students. Students respond more positively when learning resources and activities are developed through multimodality - this involves the use of podcasts, vodcasts, memes, pictures, power points, flowcharts, symbols, graphs, and figures. Our teaching and learning methodologies in HEIs and distant education institutions must be adjusted in light of this multimodality. In the end, a key to reducing transactional distance in open-distance learning contexts is the adaptability of the course structure and the interactive nature of the course material.

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