Moodle in an Open Distance e-Learning University: Is It a Building or Stumbling Block to Student Interaction and Autonomy?

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Abstract

Higher education institutions (HEIs) in Africa are seemingly staggering under the burden of digital division and exclusion. Due to its perceived flexibility and affordability for students in remote areas, distance education is a popular option for many students at HEIs. One of the e-learning tools introduced is a modular object-oriented dynamic learning environment (Moodle) learning management system (LMS), which is designed using web-based applications and provides online learning services to students. The key question remains: how do firstyear students experience Moodle? Do they view it as a building block to their learning? Or is it a stumbling block? This article reports on a study that was conducted in a South African open distance e-learning (ODeL) institution with students who speak English as an additional language, in an Academic Writing module. The study used a qualitative case study approach and drew on the theory of transactional distance to understand how Moodle encourages student interaction and autonomy. Although the study findings cannot be generalised on a broader scale, the findings are in line with similar studies, amplifying the critical role of student experiences, interaction, and autonomy in HEIs to bring about the required change.

Keywords: e-learning; modular object-oriented dynamic learning environment; first-year students; open distance e-learning; student experiences; interaction; autonomy; transactional distance



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Introduction, Background, and Context

The unprecedented change in higher education institutions (HEIs) has forced lecturers to adopt new ways of creating and implementing teaching and learning activities. Open distance e-learning (ODeL) institutions have had to adapt to pandemic restrictions imposed on face-to-face and hybrid learning and have discontinued most conventional forms of education and assessment (Byrnes et al. 2021). In ODeL, there is a geographical distance between students, lecturers, and the university (Sevnarayan 2022b). Kintu and Wanami (cited in Shalhoub and Kunt 2021) claim that the terms "distance education", "e-learning", "web-based training", "open distance learning" (ODL), and "ODeL" are often used interchangeably as in this article. This contention has led researchers to a definition of ODeL, which is the use of e-learning tools to enable varied interactions and dialogue that can bridge the distance between lecturers and students synchronously and asynchronously. ODeL can be more teacher-centric than learner-centric (Krishnan, Devikrishna and Aich 2021). Disputably, the limited interaction in ODeL can contribute to what Moore (1993) calls "transactional distance" (TD) (Sevnarayan 2022b; Swart and Macleod 2021). TD refers to the psychological and social distance between lecturers and students (Moore 1993; Quong, Snider and Early 2018). One way to decrease TD is to consider the learning management system (LMS) over which the interaction takes place.

LMSs are software applications that enable students and lecturers to document, track, manage, and report on the learning content (Ellis 2009). Interaction in the LMS happens through the features that enable communication, either synchronously or asynchronously. Approximately 561 LMSs are available globally for educational purposes (Gamage, Ayres and Behrend 2022). The modular object-oriented dynamic learning environment (Moodle) is one of the most widely used and researched opensource LMSs (Al-Hawari et al. 2021; Gamage, Ayres and Behrend 2022; Krishnan, Devikrishna and Aich 2021; Setiadi et al. 2021; Sevnarayan 2023a; Singh 2022). Although Moodle has been adopted globally, there is limited research on the users (Muschamp et al. 2021; Quansah and Essiam 2021); hence, there was a need for this study.

The current study focused on first-years students' experiences, interaction, and autonomy with Moodle in one module, Academic Language and Literacy in English (ENG321), at an ODeL university in South Africa. This module registers approximately 20 000 students per semester and it aims to develop students' academic writing skills. Many students enrolled in this module either fail or repeat the course between two to eight semesters. It is argued that student interaction through the LMS is important to prevent online student isolation and student dropouts. Student interaction may be an important factor in the retention of online students, which may lead to a decrease in dropout rates (Banna et al. 2015). Moodle was made available to lecturers and students in January 2022 at the South African university under study. However, the researchers

were unable to source literature on Moodle implementation in African distance education contexts. Due to the paucity of distance education research on Moodle, the researchers set out to close this gap in the literature, by utilising a South African ODeL perspective. The significance of this study goes beyond the technical aspects of Moodle's implementation to the actualisation and, ultimately, to the shared meaning-making and significance webs for both global institutions and their staff as well as for the communities from which the students originate and will ultimately serve. The objective of the current study was to analyse first-year students' interaction and autonomy in using Moodle to understand academic writing at the university under study. The study focused on the ENG321 module and addressed the following three research questions:

- 1. What are students' experiences with Moodle?
- 2. How does Moodle facilitate student interaction?
- 3. How does Moodle aid student autonomy?

Rationale

As a new LMS, the researchers, who are lecturers of English, encountered numerous challenges related to the implementation of Moodle. The research problem was that the lecturers found that the ENG321 module lacked student interaction and autonomy before the adoption of Moodle. The module's pass rates were moderately low, averaging 50 to 65% each semester. The lecturers sought to research how Moodle might affect student interaction and autonomy since its implementation. Thus, the objective of the study was to investigate students' experiences of Moodle to gain better insights into their journeys relating to using Moodle. An understanding of students' experiences can offer possibilities for lecturers to leverage and strengthen students' positive experiences, as well as put in place measures to address the negative experiences and challenges they encountered while using Moodle.

A Snapshot of Related Works on Moodle

The objective of this section is to review works about Moodle globally and locally to understand students' experiences, interaction, and autonomy within the Moodle LMS in HEIs. Students in developing countries encounter difficulties when they utilise Moodle. Various studies have shown that Moodle "is mainly used as a repository of study material" or to upload notes (Costa, Alvelos and Teixeira 2012, 334; Deliwe 2020; Rajan and Manyala 2021). The researchers assume that Moodle is an interactive LMS (Ajani 2021; Gamage, Ayres and Behrend 2022; Sevnarayan 2023a), which has the potential to engage students and allow for collaborative opportunities between lecturers and students, students and students; and the students and their content material (Kurniawan and Septiana 2021; Moore 1993; Sevnarayan 2022a).

In Sevnarayan (2023b) and Gultom and Suhartini's (2021) terms, student interaction and engagement are crucial aspects of the teaching and learning process. Although some studies seem to posit contradictory views on Moodle (Deliwe 2020; Mlotshwa, Tunjera and Chigona 2020), they have revealed that Moodle allows students to engage with their lecturers and with each other. Moodle is accessible in that lecturers have instant access to students, either synchronously or asynchronously (Mlotshwa, Tunjera and Chigona 2020). However, for Essel and Wilson (2017) and Hasan (2021, 362):

The challenges the [Malaysian] students faced on Moodle . . . [included] lack of support for group work; it was not entertaining or novel, and the interface was not attractive; technical issues existed (for example, server downtime, website inaccessibility, login issues); courses were sometimes badly structured; weak communication.

Two studies (Coman et al. 2020; Hasan 2021) found that students and lecturers did not find Moodle useful; it did not encourage collaboration; and it lacked lecturer support and communication, which can result in isolation between lecturers and students. However, Gudkova et al. (2021) conducted a study with Russian students and found that Moodle features a larger number of positive aspects than negative ones.

Researchers (e.g. Cotterall 2000; Fotiadou, Angelaki and Mavroidis 2017; Holec 1981) state that with Moodle, autonomous students take responsibility for their online learning, performance, and success. On the ENG321 Moodle site, there are "innovative learner-centred" activities that aim to encourage student autonomy (Fotiadou, Angelaki and Mavroidis 2017, 107). Moreover, in Serbia, students report that Moodle enables them to organise their learning environment, manage their time efficiently and learn how to apply self-assessment skills effectively (Stanković, Milovanović and Radović 2017). For Tharumaraj, Rajandram and Singaram (2021, 58):

There is a strong association between level of autonomy and motivation . . . It shows that those with low motivation level also had low autonomy level . . . in using Moodle in developing language learning. However, those with a high motivation level had a high autonomy level in using Moodle for building their English language skills.

According to Tharumaraj, Rajandram and Singaram (2021), the interaction between lecturers and students is easier on Moodle as it advocates for knowledge development, skill exchange, learning independence, and collaboration. Interaction on Moodle aims to build an autonomous student, "who seeks knowledge, is constantly being researched, more so since [lecturer] – student [interaction] is continuously evolving with time" (Sevnarayan 2023b; Tharumaraj, Rajandram and Singaram 2021, 58).

On Reducing Transactional Distance through the Moodle LMS

The study was foregrounded in Moore's (1993) theory of TD, which is concerned with the communication distance between lecturers and students. As a global theory, TD has

been widely adopted in ODeL research and used as a framework to examine interaction in online education contexts. TD is the space between lecturers and students that must be crossed; yet it is a place of potential misunderstanding between students, lecturers, and the content they learn (Sevnarayan 2022b; Swart and Macleod 2021). Moore suggested that the stakeholders of ODeL should consider three variables that affect TD: structure, dialogue, and autonomy (Moore 1993; Sevnarayan 2022b; Swart and Macleod 2021; Zhang 2003). Structure refers to the organisation of tools and design that lecturers use to organise their LMS, and dialogue refers to the interaction between lecturers and students. Autonomy refers to the nature and degree of responsibility and self-directedness of the student. Figure 1 illustrates that the more structure and less dialogue a lecturer exhibits, the greater the TD between the students and their learning and the greater the responsibility of the student would be.

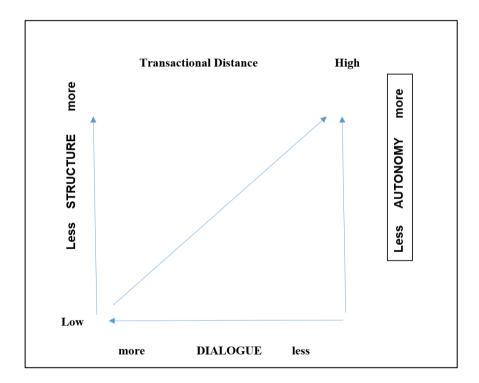


Figure 1: Moore's (1993) theory of transactional distance (Sevnarayan 2022b)

TD is a continuum from high to low: a module with low TD is characterised by a greater teaching presence, "interpersonal closeness, sharedness and perceived learning" among students (Huang et al. 2016, 738; Zhang 2003). It is also important to note that the theory is dynamic and not static; it varies depending on the instructional context. Moore (1993)

has argued that high structure limits the responsiveness of the module to the students' needs and preferences, which in turn, increases TD. However, other researchers have found that high structure can increase dialogue between students and, therefore, decrease TD (Huang et al. 2016).

Methodology

This study adopted a qualitative approach because it sought an in-depth understanding of students' lived experiences of the newly implemented Moodle LMS. This interpretive participatory action research (PAR) study seeks to reduce the TD between students and lecturers, students and students; and students and their subject content (Stake 2005). A PAR design was selected for this study as it "involves researchers and participants working together to understand a problematic situation and change it for the better" (Participatory Methods 2018, 1). In PAR, lecturers are regarded as experts; consequently, PAR studies motivate researchers to participate eagerly alongside other participants such as students. The following four processes of PAR were followed in this study:

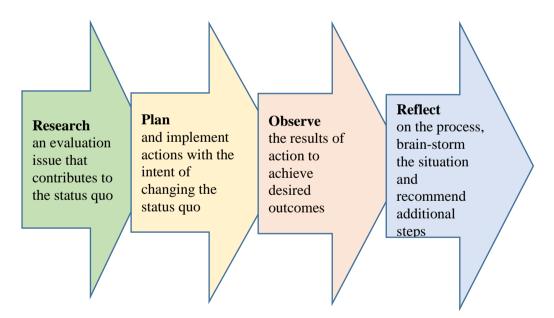


Figure 2: The four processes of PAR

The population comprised first-year students in an ODeL university in South Africa, registered for the ENG321 module. The first research question was answered using the two open-ended evaluation questions that were posted on the ENG321 Moodle site (see figure 3). Of the 20 000 students registered for the module, approximately 3 000 students answered the open-ended evaluation questions. Since this was a qualitative study, only 20 of the responses were randomly sampled for the study. The second and third research questions were answered using the students' responses to the focus group discussion (FGD) questions (see figure 5) that took place in April 2022 over a two-hour Microsoft Teams meeting. Twenty students were invited to participate in the study through the ENG321 Telegram group; however, only 11 students attended the Microsoft Teams meeting with the researchers.

The study adopted a convenience sampling technique because the population was large, thus the researchers first sought an initial understanding of students' experiences in this context, using a cost-effective and convenient process comprising students who were readily available and willing to participate in the study (Etikan and Bala 2017; Ilker, Sulaiman and Rukayya 2016). The data were analysed using the thematic analysis method and then organised in line with the three research questions. Before conducting the study, ethical clearance was applied for and granted by the university's ethics committee (Ref #: 2021 RPSC 050). Towards the middle of the semester (April 2022), the participants were given letters of informed consent and were allowed the opportunity to participate in and/or withdraw from the study. Participation in the study was voluntary. All the participants were given pseudonyms to protect their identities. The module name, ENG321, was a pseudonym used to protect the staff and the confidentiality of the students. No face-to-face interviews were held to prevent the spread of the COVID-19 virus. The university policy stipulates that confidentiality and adherence to COVID-19 protocols be observed and adhered to before, during, and after the COVID-19 lockdown.

Discussion of Findings

In this section, the findings are discussed in line with the three main research questions:

- 1. What are students' experiences with Moodle?
- 2. How does Moodle facilitate student interaction?
- 3. How does Moodle aid student autonomy?

Research Question 1: What are Students' Experiences with Moodle?

To answer the first research question, the following two questions were posed in an open-ended evaluation forum posted on the ENG321 Moodle site (see figure 3):

| Ope | Open-ended evaluation questions | |
|-----|--|--|
| 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 or make your learning difficult? | |

Figure 3: Open-ended evaluation questions

The first question sought information about students' experiences with the ENG321 Moodle site. Below are the verbatim responses of three participants:

My experience with the ENG321 Moodle site is its easily accessible. The only disadvantage is when the system crashes. I really enjoy the site, especially for this module. You made it very interactive, and everything is so accessible. I get to discuss issues on the site with other students, which is great. (Janet, 2022 evaluation forum)

This site is well-designed and easy on the eye. More than this, it is so streamlined compared to other modules. I get to learn from other students by seeing the essays they post. There are notifications on Outlook when a lecturer has announced something, and everything is easy to find after the welcome message. (Callum, 2022 evaluation forum)

The Moodle site for this module is easy to use and I enjoy the motivational and funny pictures, the Tiktoks, the podcasts and vodcasts, and all your live sessions. The information is placed in an orderly manner and is very informative of the subject in discussion. Of all the modules I am registered for, this one has the most interaction and information posted to the module site. (Sipho, 2022 evaluation forum)

The data seems to suggest that the site embodies innovation and learning is more student-centric on the ENG321 module which is in line with the arguments made by other scholars (Gamage, Ayres and Behrend 2022; McClure and Williams 2021; Singh 2022). The students echo the design and innovation of the site when they mention "the use of memes ... [and the site being] interactive and accessible". Sipho (2020 evaluation questions) stated that ENG321 "has the most interaction and information posted to the module site". Arguably, student interaction and autonomy may be important aspects in the retention and success of online distance students (Banna et al. 2015).

The ENG321 Moodle site is an innovative way of interacting with students, making learning a worthwhile experience (Al-Ajlan and Zedan 2008; Panigrahi, Sevnarayan 2023a; Srivastava and Sharma 2018; Romero-Sánchez and Barrios 2022). Like Sipho (2020 evaluation forum) mentioned, "I enjoy the motivational and funny pictures, the Tiktoks, the podcasts and vodcasts and all your live sessions," there are many functionalities in an online learning environment that students feel drawn to, and which can allow for an easy flow of information.

Due to the innovations on the Moodle site, it can be argued that the TD was reduced between lecturers and students, students and students, and students and their ENG321 content as illustrated in figure 4. According to Moore (1993), an increase in student and lecturer dialogue tends to decrease student autonomy. The findings of this study, however, showed that the more interactive the lecturers are with the students on Moodle, the more active and autonomous the students become, which contrasts with what Moore (1993) argues.

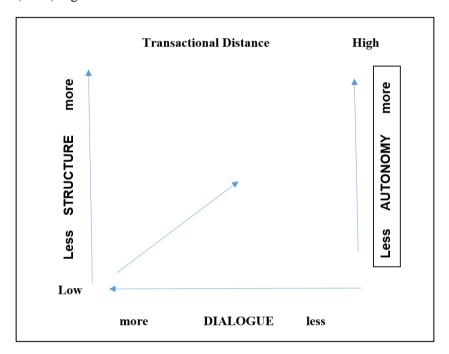


Figure 4: Reduced transactional distance (Sevnarayan 2022b)

Regarding the strengths of the Moodle site and how it enables students' learning, below are two verbatim responses from the evaluation questions (see figure 3):

One of the strengths of the Moodle site is that it has push notifications and alerts me when tasks are due. This is my first-time using Moodle, but I wish all my modules were as fun and as interactive as this one. (Jeff, 2022 evaluation forum)

It is so motivating. Thank you for the TikToks as it pushes us through the trials and tribulations that we face daily. I think the biggest strength is the interaction with the ENG321 team. It helps to know that you are there, care, and are behind us. (Zola, 2022 evaluation forum)

Concerning the weaknesses of the site, and how Moodle makes learning difficult, three students are quoted verbatim below:

I didn't have any difficulties, but I could see in the Telegram group that students who submit last minute experience a lot of difficulties with submissions. (Cayla, 2022 evaluation forum)

The only weakness for me is when Moodle crashes or when they undergo maintenance; but other than that, it is good. (Mimi, 2022 evaluation forum)

I find that there is an information overload on the site. I have many modules and I do not have time to sift through all the information on the site. Sometimes, I find it confusing where to find a specific resource because there are so many sections on the site. (Sipho, 2022 evaluation forum)

Thus, the Moodle site has its strengths and weaknesses. The students who mentioned the strengths of the Moodle site alluded that it is accessible, flexible, interactive, fun, and motivating. This indicates that the Moodle site decreased the TD between students and lecturers, students and students; and students and their ENG321 content. Krishnan, Devikrishna and Aich (2021) argued that online sites can tend to be more teacher-centric than student-centric and the student pointed out in the evaluation questions that some of his other modules are not as interactive as the one under study.

The students did mention the weaknesses that inhibit their learning and revealed that there are challenges, which include the volatility of the Moodle site, information overload on the site, and some confusion as to where to find resources. Similarly, Essel and Wilson (2017) mentioned that students also experienced issues with assignment submissions, difficulty in logging in, organisation of material, and difficulty accessing materials. However, weaknesses in the site may arguably increase the TD in the module (Moore 1993).

The second and third research questions were answered using the students' responses to the FGD questions (see figure 5).

Research Question 2: How Does Moodle Facilitate Student Interaction?

To answer the second research question, the following questions were posed in the FGD with the students in the Microsoft Teams meeting:

| Focus group discussion questions | |
|----------------------------------|--|
| 1. | How often do you interact with other students on Moodle? |
| 2. | How often do you interact with your lecturers on Moodle? |

| 3. | Which section of the ENG321 Moodle site encourages you to interact |
|----|--|
| | with lecturers the most? |
| 4. | Discuss the level of interaction between lecturers and students on the |
| | ENG321 Moodle site. |
| 5. | What persuades you to interact with us on Moodle? |

Figure 5: Focus group discussion questions

The students' responses to the first FGD question confirmed that they seldom communicated with or responded to other students on the Moodle site or hardly ever saw students chat on the site. Below are some of the verbatim responses from the FGD:

I never had the opportunity to interact with other students on the site. In my other module, we have a section on the Moodle site where the lecturer asked us to comment on each other's reflections. In this module, we do not have a space on the site to comment on other students' work or engage with them. (Pheladi, 2022 FGD)

We do not know how to get access to or communicate with other students on the Moodle site. We do communicate on Telegram and WhatsApp but not on the Moodle site. (Karabo, 2022 FGD)

In my other modules, we have no "hot questions" on the forum for interacting with other students but in this module we do. If I need to ask a question, I post it on the "hot questions" forum and one of the lecturers or other students assist me. (Jill, 2022 FGD)

The lack of student interaction on the Moodle site seems to indicate that there may be an increase in TD between students, due to the lack of dialogue between them (Moore 1993). Students who interacted with other students indicated that they found it simpler to respond to each other on Telegram where communication was much easier and faster, rather than on the ENG321 Moodle site. There could be TD between students on the Moodle site (Quong, Snider and Early 2018; Swart and Macleod 2021) which is a concern in the module. After the FGD with the students, the lecturers reflected on the missing student interaction on the site and proceeded to create opportunities for student interaction. For example, a "student collaboration" section was created on the site where the lecturers created academic writing activities, whereafter the students were instructed to comment and provide feedback on other students' responses. The lecturers facilitated peer feedback between the students and, in line with the participatory action research nature of this study (Participatory Methods 2018), created a change in what was lacking in the module.

The students' responses to the second FGD question (see figure 5) varied as shown below:

I interact on the Moodle site with lecturers as often as I do on Telegram. I find Telegram easier to work with because the response time is almost immediate, but with Moodle, I may get a response the next day. (Blessing, 2022 FGD)

Maybe once or twice a week, depending on when we are notified on Telegram that something new has been added to the site. (Grace, 2022 FGD)

I had a lecturer communicating with me on the site at around 11 pm that I had an assignment due the next day. I see that as a high level ... a 10/10. Ever since that day, I have been checking the site every day for new announcements, resources, and notifications. (Pheladi, 2022 FGD)

Some students rarely interacted with the lecturers and preferred to interact with the lecturers on Telegram rather than on the ENG321 Moodle site. The students also appreciated the messages from the lecturers about assignments that were due as one student pointed out:

I had a lecturer communicating with me on the site at around 11 pm that I had an assignment due the next day. I see that as a high level ... a 10/10. (Pheladi, 2022 FGD)

Although some students do interact with lecturers on the Moodle site, data shows that there is still a TD gap that needs to be addressed (Sevnarayan 2022b; Swart and Macleod 2021).

Finally, the students' responses to the last three FGD questions (see figure 5) varied. Some found certain aspects of the site interesting, which they believed facilitated interaction between them and their content:

I found the TikToks exciting and encouraging. I have eight subjects and only ENG321 was able to motivate me to pick up my study material. (Jill, 2022 FGD)

The podcasts helped me understand the content, especially the vodcasts. I particularly enjoyed the recorded lessons, which I could access on my own time. I found the writing centre particularly helpful with all the podcasts and vodcasts. (Blessing, 2022 FGD)

Because I am working, I found the lessons very resourceful. I liked that there was a lesson in every section, and I could work with these short activities at my own pace. (Mike, 2022 FGD)

Other students referred to the content-filled writing centre, the audio-visual aids, and the podcasts that were uploaded. Some students found the podcast transcripts more useful than the podcasts themselves, while others preferred listening to the actual lessons, that is, the recordings of the virtual classes. Some students appreciated and

found the Moodle site interactive, as one student made a comparison of the ENG321 site to other modules and indicated:

ENG321 was able to motivate me to pick up my study material. (Jill, 2022 FGD)

From a TD perspective, the gap between the students and the subject content was reduced (Moore 1993; Swart and Macleod 2021).

While the Moodle site has the potential and does offer greater opportunities to decrease the TD between students and students, students and lecturers as well as students and content, there were, however, still some challenges that impacted the three levels of interaction on the Moodle site. Some students preferred interacting on Telegram and using the Moodle App, rather than on the ENG321 Moodle site, while others used both the Moodle App and Moodle site. The findings were a clear picture of the diverse needs, learning styles, and preferences of students registered in the module. Thus, while the module has largely provided opportunities to increase interaction in the module, there were gaps to be addressed.

Research Question 3: How Does Moodle Aid Student Autonomy?

To answer the third research question, the following question was posed in the FGD with the students in a Microsoft Teams meeting and on the open-ended evaluation forum on the Moodle site:

| Focus group discussion and evaluation question | | |
|--|---|--|
| 1. | Is the ENG321 Moodle site a building or stumbling block to your | |
| | learning? | |

Figure 6: Focus group discussion and evaluation question

When asked if Moodle is a building or stumbling block to their learning, the students responded as indicated below:

Moodle is a building block for sure. It makes learning exciting and much easier. I can easily access information and study material online. I am always learning new things. (Blessing, 2022 FGD)

I find everything in a second. It does not take up my data, as it is free. It is a building block because I have all the resources that are there to help me. (Liam, 2022 evaluation forum)

It is a building block because we are always kept in the loop. The site is filled with activities and tracks my progress. The badges we receive, and the course progress percentage bar motivate me. (Karabo, 2022 FGD)

Responses from the FGDs and the online open-ended evaluation forum revealed that students viewed Moodle as a building block. These findings supported Deliwe's (2020, 8389) assertion that Moodle is "free and user-friendly". Students' responses further indicated that Moodle allows them the freedom to work independently. Seemingly, lecturers encourage student autonomy on the ENG321 Moodle site (Sevnarayan 2023b; Tharumaraj, Rajandram and Singaram 2021). An increase in dialogue from lecturers and a good design and structured Moodle site does narrow the TD gap (Moore 1993) between lecturers and students. Although some students regarded Moodle as a building block and a useful learning and teaching tool, others had contradictory views. For instance, Sipho (2022 evaluation forum) attested that:

Moodle . . . is a stumbling block for me in terms of time constraints, work, and other responsibilities. I prefer a self-paced e-learning form of instruction and or lessons, as my obligations hinder my ability to attend some lessons on a set schedule as with Moodle. The Moodle does not allow me to book a class, and review material on my schedule, and this has added to my anxiety.

Students who viewed Moodle as a stumbling block believe that the Moodle site is overwhelming and involves a lot of work. For example, Sipho (2022 evaluation questions) stated that was he unable to review material on his schedule. This seems to be a misconception as recording links are available for students immediately after their online lessons (Mlotshwa, Tunjera and Chigona 2020). Other students said that the constant Moodle maintenance and the system crashes hinder their learning and are a stumbling block. The researchers agree that Moodle can be a stumbling block due to its high volatility and inconsistencies, which are out of the lecturers' control. However, if the Moodle site (through the lecturer) encourages interaction and autonomy, Moodle can be a building block to students' learning.

Conclusion and Recommendations

The current study is the first step in enhancing researchers' understandings of students' experiences of Moodle and how the LMS facilitates their interaction and autonomy. Without the presence of the lecturer, Moodle would certainly be a stumbling block to learning; as Devi and Aparna (2020, 4474) echo, "there is a need to change teaching techniques to [suit] the technological changes". The lecturer is a facilitator of Moodle to ensure that it is a building block that aids in supporting students. Most of the students who were interviewed in the study and commented in the open-ended evaluation forum confirmed that the ENG321 Moodle site is a building block to their learning rather than a stumbling block. The implication of this study goes beyond the confines of this article;

it questions the pedagogies used by distance education lecturers to encourage student participation and autonomy through LMSs. The study may also work as a guide for practitioners and decision-makers in HEIs who want to improve student support using e-learning technologies. These findings add substantially to the growing body of literature on problems and solutions in ODeL, especially in the South African higher education context.

References

- Ajani, O. A. 2021. "Using Moodle for Curriculum Delivery in Higher Institutions during the COVID-19 Pandemic." *International Journal of Innovation, Creativity and Change* 15 (4): 708–724.
- Al-Ajlan, A. and H. Zedan. 2008. "Why Moodle." In 12th IEEE International Workshop on Future Trends of Distributed Computing Systems, 58–64. https://doi.org/10.1109/FTDCS.2008.22
- Al-Hawari, F., H. Barham, O. Al-Sawaeer, M. Alshawabkeh, S. Alouneh, M. I. Daoud, and R. Alazrai. 2021. "Methods to Achieve Effective Web-based Learning Management Modules: MyGJU versus Moodle". *PeerJ Computer Science* 7: e498. https://doi.org/10.7717/peerj-cs.498
- Banna, J., M. F. G. Lin, M. Stewart, and M. K. Fialkowski. 2015. "Interaction Matters: Strategies to Promote Engaged Learning in an Online Introductory Nutrition Course." *Journal of Online Learning and Teaching* 11: 249–261. Accessed June 25, 2022. http://jolt.merlot.org/
- Byrnes, K. G., P. A. Kiely, C. P. Dunne, K. W. McDermott, and J. C. Coffey. 2021. "Communication, Collaboration and Contagion: "Virtualisation" of Anatomy during COVID-19." *Clinical Anatomy* 34 (1): 82–89. https://doi.org/10.1002/ca.23649
- Coman, C., L. G. Ţîru, L. Meseşan-Schmitz, C. Stanciu, and M. C. Bularca. 2020. "Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students Perspective." *Sustainability* 12 (24). https://doi.org/10.3390/su122410367
- Costa, C., Alvelos, H. and Teixeira, L. 2012. "The Use of Moodle E-Learning Platform: A Study in a Portuguese University." *Procedia Technology* 5: 334–343. https://doi.org/10.1016/j.protcy.2012.09.037
- Cotterall, S. 2000. "Promoting Learner Autonomy through the Curriculum: Principles for Designing Language Courses." *ELT Journal* 54 (2): 109–117. https://doi.org/10.1093/elt/54.2.109

- Deliwe, A. P. 2020. "The Use of Learner Management System (MOODLE) in Promoting Teaching and Learning." *Universal Journal of Educational Research* 8 (12B): 8383–8392. https://doi.org/10.13189/ujer.2020.082644
- Devi, K. S. and M. Aparna. 2020. "Moodle An Effective Learning Management System for 21st Century Learners." *Alochana Chakra Journal* 9 (6): 4474–4485.
- Ellis, R. K. 2009. "A Field Guide to Learning Management Systems." American Society for Training and Development (ASTD). Accessed June 25, 2022. https://home.csulb.edu/~arezaei/ETEC551/web/LMS_fieldguide_20091.pdf
- Essel, D. D. and O. A. Wilson. 2017. "Factors Affecting University Students' Use of Moodle: An Empirical Study Based on TAM." *International Journal of Information and Communication Technology Education* 13 (1): 14–26. https://doi.org/10.4018/IJICTE.2017010102
- Etikan, I. and K. Bala. 2017. "Sampling and Sampling Methods." *Biometrics and Biostatistics International Journal* 5 (6): 215–217. https://doi.org/10.15406/bbij.2017.05.00149
- Fotiadou, A., C. Angelaki, and I. Mavroidis. 2017. "Learner Autonomy as a Factor of the Learning Process in Distance Education." *European Journal of Open Distance and E-Learning* 20 (1): 95–110. https://doi.org/10.1515/eurodl-2017-0006
- Gamage, S. H. P. W., J. R. Ayres, and M. B. Behrend. 2022. "A Systematic Review on Trends in Using Moodle for Teaching and Learning." *International Journal of STEM Education* 9: 1–24. https://doi.org/10.1186/s40594-021-00323-x
- Gudkova, Y., S. Reznikova, M. Samoletova, and E. Sytnikova. 2021. "Effectiveness of Moodle in Student's Independent Work." *E3S Web of Conferences* 273: 12084. https://doi.org/10.1051/e3sconf/202127312084
- Gultom, A. and S. I. Suhartini. 2021. "Teacher Competence, and Technology in Online Learning: Does It Create a Meaningful Learning." In *Proceedings of the 6th International Seminar on Science Education*, 169–180. https://doi.org/10.2991/assehr.k.210326.024
- Hasan, L. 2021. "Examining User Experience of Moodle e-Learning System." *International Journal of Advanced Computer Science and Applications* 12 (11). https://doi.org/10.14569/IJACSA.2021.0121141
- Holec, H. 1981. Autonomy and Foreign Language Learning. Oxford: Pergamon.
- Huang, X., A. Chandra, C. A. DePaolo, and L. L. Simmons. 2016. "Understanding Transactional Distance in Web-based Learning Environments: An Empirical Study." *British Journal of Educational Technology* 47 (4): 734–747. https://doi.org/10.1111/bjet.12263

- Ilker, E., A. M. Suliman, and S. A. Rukayya. 2016. "Comparison of Convenience Sampling and Purposive Sampling." *American Journal of Theoretical and Applied Statistics* 5 (1): 1–4. https://doi.org/10.11648/j.ajtas.20160501.11
- Krishnan, A. G., D. S. Devikrishna, and S. C. Aich. 2021. "Online Education amidst Pernicious COVID Scourge: Altering Traditional Educational System and Implementation of Arts-Friendly Distance Education Strategies." *Annals of the Romanian Society for Cell Biology* 25 (4): 7470. https://www.annalsofrscb.ro/index.php/journal/article/view/3379
- Kurniawan, B. I. and A. R. Septiana. 2021. "An Analysis of Students' Experience in the Use of Moodle in Writing Class during Pandemic COVID-19." *Linguists: Journal of Linguistics and Language Teaching* 7 (2): 16–28. https://doi.org/10.29300/ling.v7i2.5318
- McClure, C. and P. Williams. 2021. "Gather.town: An Opportunity for Self-paced Learning in a Synchronous, Distance Learning Environment." *Compass: Journal of Learning and Teaching* 14 (2): 19. https://doi.org/10.21100/compass.v14i2.1232
- Mlotshwa, N., N. Tunjera, and A. Chigona. 2020. "Integration of MOODLE into the Classroom for Better Conceptual Understanding of Functions in Mathematics." *South African Journal of Education* 40 (3): 14. https://doi.org/10.15700/saje.v40n3a1570
- Moore, M. G. 1993. "Theory of Transactional Distance." In *Theoretical Principles of Distance Education*, edited by D. Keegan, 22–29. New York: Routledge.
- Muschamp, A., M. Cus, T. Humes, and A. Flowers. 2021. "Analyzing Students' Perspective of the Learning Management System Moodle at the University of Belize." *Proceedings of the Conference for MIS@UB* 4 (1): 1–19.
- Panigrahi, R., P. R. Srivastava, and D. Sharma. 2018. "Online Learning: Adoption, Continuance, and Learning Outcome A Review of Literature." *International Journal of Information Management* 43: 1–14. https://doi.org/10.1016/j.ijinfomgt.2018.05.005
- Participatory Methods. 2018. "Participatory Methods. Brighton: Institute of Development Studies." https://www.ids.ac.uk/publications/participatory-methods-website/
- Quansah, R. and C. Essiam. 2021. "The Use of Learning Management System (LMS) Moodle in the Midst of COVID-19 Pandemic: Students' Perspective." *Journal of Educational Technology and Online Learning* 4 (3): 418–431. https://doi.org/10.31681/jetol.934730
- Quong, J., S. L. Snider, and J. Early. 2018. "Reducing Transactional Distance in Online and Blended Courses through the Use of a Closed Social Media Platform." *Journal of Educational Technology Systems*, 47 (1): 79–100. https://doi.org/10.1177/0047239518766654

- Rajan, R. and R. O. Manyala. 2021. "Effectiveness of Moodle in the Learning of Introductory Physics during COVID-19 Pandemic: A Case Study at the University of Zambia." *Age* 15 (19): 20–24.
- Romero-Sánchez, D. and D. Barrios. 2022. "Technological Acceptance of Virtual Platforms in University Students: An Analysis in Times of Pandemic." *Revista Iberoamericana de Tecnologias del Aprendizaje* 17 (1): 17–20. https://doi.org/10.1109/RITA.2022.3149782
- Setiadi, P. M., D. Alia, S. Sumardi, P. Respati, and L. Nur. 2021. "Synchronous or Asynchronous? Various Online Learning Platforms Studied in Indonesia 2015–2020." *Journal of Physics: Conference Series* 1987: 012016. https://doi.org/10.1088/1742-6596/1987/1/012016
- Sevnarayan, K. 2022a. "A Trajectory towards a Culture of Quality: A Phenomenological Study of an Open Distance Learning University in South Africa and in China." *Research in Social Sciences and Technology* 7 (3): 49–64. https://doi.org/10.46303/ressat.2022.16
- Sevnarayan, K. 2022b. "Reimaging eLearning Technologies to Support Students: On Reducing Transactional Distance at an Open and Distance eLearning Institution." *E-Learning and Digital Media* 19 (4): 421–439. https://doi.org/10.1177/20427530221096535
- Sevnarayan, K. 2023a. "Moodle as a Tool to Reduce Transactional Distance at an Open Distance and e-Learning University." *Studies in Learning and Teaching* 4 (1): 13–29. https://doi.org/10.46627/silet.v4i1.165
- Sevnarayan, K. 2023b. "The Implementation of Telegram as a Pedagogical Tool to Enhance Student Motivation and Interaction." *Journal of Education Technology* 7 (1): 71–79. https://doi.org/10.23887/jet.v7i1.52488
- Shalhoub, M. M. and N. Kunt. 2021. "Online Distance Learning Experience in the Light of COVID-19 Pandemic in Higher Education in Palestine: EFL Instructors' and Learners' Perspectives." Paper presented at the 4th International Conference of Advanced Research in Education, November 26–28, Oxford.
- Singh, D. 2022. "A Case Study on Moodle: An Effective Learning Management System in the Present Scenario." *International Journal of Multidisciplinary Educational Research* 2 (4): 11–18. http://ijmer.in.doi./2022/11.02.62
- Stake, R. E. 2005. "Qualitative Case Studies." In *The SAGE Handbook of Qualitative Research*, edited by N. K. Denzin and Y. S. Lincoln, 443–466. 3rd ed. Thousand Oaks: SAGE.
- Stanković, J., S. Milovanović, and O. Radović. 2017. "Applying the Moodle Platform in Online Student Self-Assessment." *Economic Themes* 55 (2): 281–304. https://doi.org/10.1515/ethemes-2017-0016

- Swart, W. and K. MacLeod. 2021. "Evaluating Learning Space Designs for Flipped and Collaborative Learning: A Transactional Distance Approach." *Education Sciences* 11 (6): 292. https://doi.org/10.3390/educsci11060292
- Tharumaraj, J. N., K. V. Rajandram, and N. Singaram. 2021. "Educator-Student Partnership: Utilizing Moodle to Investigate How Learner Autonomy Is Expressed." In *Transforming Curriculum through Teacher-Learner Partnerships*, edited by P. Nair, M. J. Keppell, C. L. Lim, T. Mari and N. Hassan, 48–68. Hershey: IGI Global. https://doi.org/10.4018/978-1-7998-6445-5.ch004
- Zhang, A. M. 2003. "Transactional Distance in Web-based College Learning Environments: Toward Measurement and Theory Construction." Doctoral diss., Commonwealth University, Virginia.