



## Exploring Lecturers' Responsiveness to Teaching and Learning Using Moodle at a Namibian University

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### ABSTRACT

The responsiveness of lecturers at Namibian universities to Moodle as a teaching and learning platform is addressed in this paper. It observes, among other things, the increasing adoption of Moodle as an LMS in Namibian and higher education settings globally and notes that special challenges may be barring Namibian universities from harnessing Moodle to full potential; chief among these are issues concerning poor internet connectivity and limited technical support. Guided by the interpretative paradigm and anchored in the Community of Inquiry (CoI) framework, a robust and widely respected research methodology, the study explored lecturers' responsiveness to teaching and learning using Moodle at a Namibian university. The research employs a descriptive case study design and involves a purposive sample of seven faculty members from diverse disciplines. In-depth virtual interviews were used for data collection, with thematic analysis revealing key findings. Findings revealed various factors influencing lecturer responsiveness, including factors promoting blended learning and challenges hindering responsiveness. Further challenges encompass workload, course design, technical support availability, and access to learning resources. Based on the results, implications advocated for comprehensive Moodle orientation and training programmes, improved technical support, reliable internet access, and staff well-being. This research provides valuable insights for enhancing e-learning practises at a Namibian higher education institution. Future research may investigate the pedagogical aspects of Moodle usage in other contexts and extend these insights to diverse educational settings.

### KEYWORDS

Lecturers' responsiveness; Moodle; teaching and learning; qualitative approach; interviews.

## INTRODUCTION

The responsiveness of lecturers is crucial in meeting students' learning needs effectively and promptly (Prasetya, 2023). In addition, responsive teaching involves recognising students' areas of struggle, setting clear goals, and scheduling instruction accordingly to achieve outcomes (Demery, 2022). Moreover, it is underlined that responsive teaching techniques enhance student engagement in online learning activities, fostering a sense of belonging and investment when lecturers adapt their approaches to students' unique requirements and preferences (Bulut & Arikan, 2015; Thomas et al., 2014; Zorba, 2020). Higher education institutions can leverage technology by investing in a learning management system (LMS) to support and enhance responsive teaching practices. An effective LMS not only provides students with accessible learning resources but also equips lecturers with the digital tools necessary to respond to student needs efficiently (Badaru & Adu, 2022; Zwane & Mudau, 2023). One widely adopted LMS is Moodle, which is recognised for its comprehensive features and technologies that facilitate online learning and improve student interaction (Bilousova et al., 2023; Chambi et al., 2023; Dubey, 2023; Gamage et al., 2022; Li & Xue, 2023; Onchwari & Keengwe, 2017; Seis, 2023; Suparjan et al., 2023, Yüzlü; 2023).

Moodle's adaptability and accessibility enable universities to offer diverse courses and programmes to cater to their student body (Al-Samarraie et al., 2018; Ndlovu & Reddy, 2023; Osorio, et al., 2024). However, the deployment and use of Moodle in international colleges face challenges to preventing students from accessing online learning, weak networks, low proficiency, and lack of experience with online teaching and learning technologies also prevented teachers from implementing Community of Inquiry (CoI)-compliant online teaching practices (Ara & Vijaysimha, 2023; Garrison & Kanuka, 2004; 2006; Mutoharoh, 2021; Onchwari & Keengwe, 2017). Studies reported specific benefits related to Moodle LMS (Bock, 2022; Cabero-Almenara, et al., 2019). Furthermore, Moodle has benefited faculty and students by enhancing teamwork, communication, and access to learning resources (Babalola et al., 2023; Cao, 2022; Rasheed et al., 2020;). However, Kazondovi et al. (2022) reported that Namibian universities encounter specific difficulties due to poor internet connectivity in some areas and a lack of technical support resources. Notably, research conducted at the institution under study has highlighted the low activity level of lecturing staff using Moodle for teaching and learning since its implementation in blended learning in 2011 (Bock, 2022). Insufficient technical assistance and instruction for instructors and students hinder the effective utilisation of Moodle's features (Abbad, 2021; Elkaseh, 2015; Onchwari & Keengwe, 2017; Rahman, 2023).

Studies have reported that incorporating digital tools like Moodle necessitates a significant pedagogical shift (Garrison, 2000; Ndlovu & Reddy, 2023; Osorio, et al., 2024). Despite this, there is notable resistance to such changes within Namibian public universities (Angula & Mutelo, 2021; Ithindi, 2019; Kaisara & Bwalya, 2022). It is expected from faculty to deliver engaging learning experiences as part of their strategic goals (Namibian University of Science and Technology Strategic Plan, 2021). However, support staff have expressed concerns

about the faculty's digital competencies, particularly their ability to effectively use Moodle for teaching and learning (Bock, 2022). This scepticism underscores a critical need to evaluate and enhance the integration of digital tools in higher education settings.

Lecturers' responsiveness to digital platforms like Moodle is vital because it directly influences student engagement, motivation, and learning outcomes (Olugbade et al., 2023; Paolini, 2015). As such, there is a pressing need to understand how lecturers and support staff at a Namibian institution of higher learning engage with Moodle and the challenges they face to improve both the effectiveness of the platform and the overall learning experience. This study addresses this need by examining lecturers' responsiveness to Moodle and exploring the perspectives of both lecturers and support staff on the challenges and effectiveness of the platform.

To address this need, the study investigates the following research questions:

- What are Namibian lecturers' and support staff's views on their responsiveness to using Moodle for teaching and learning?
- What challenges do Namibian lecturers and support staff face using the Moodle platform?
- How do Namibian lecturers and support staff respond to student queries and the needs of students using the Moodle platform for teaching and learning?

## LITERATURE REVIEW

### Community of Inquiry (CoI) framework for the study

The research uses The Community of Inquiry (CoI) framework to guide the analysis and address these concerns (Garrison et al., 2000; Shea et al., 2010; Swan & Shih, 2005). The CoI paradigm, developed by Garrison et al. (2000) and modified by Swan and Shih (2005) and Shea et al. (2010), served as the theoretical lens for measuring the responsiveness of lecturers using Moodle in this study. According to the CoI theory, learning is meaningful when there are three key components: cognitive presence, social presence, and teaching presence. Building knowledge and understanding through in-depth analysis and research is called cognitive presence (Meech & Koehler, 2023; Mutezo & Maré, 2023). Several researchers have utilised the Community of Inquiry framework to guide their study. For instance, Garrison et al. (2000) created a thorough framework as a research tool for online learning that included three components: social, teaching, and cognitive presence, as well as categories and indicators to describe each of the presences and to direct the coding of transcripts but CoI has received much criticism (Castellanos-Reyes, 2020; Garrison et al., 2000; Meech & Koehler, 2022; Richardson et al., 2012; Shea et al., 2022). One criticism is that, rather than coming from a social constructivist paradigm, most CoI research originates from an objectivist-rational viewpoint. As a result, the framework's basic assumption that continuous, sustained communication is required for effective learning is questioned. This requires empirical testing. Another complaint is that untested assumptions that can misinterpret popular online higher education activities for preferable ones have

unintentionally restricted the questions that could be investigated in CoI research (Shea et al., 2022).

The CoI framework's definitions of cognitive, teaching, and social presence correspond well with the study's objectives of studying lecturers' perspectives and activities linked to teaching and learning through the Moodle LMS. It is also argued that lecturers' use of social presence methods, such as active participation in online discussions and encouraging peer interactions inside Moodle, can contribute to a supportive learning community (Swan & Shih, 2005). This study intends to present a holistic perspective of lecturers' responsiveness to teaching and learning using Moodle at the Namibian university by studying the presence of the CoI framework. Mutezo and Maré (2023) and Mapudzi & Chikandiwa (2022) recognised several challenges that lecturers might have while using Moodle for teaching and learning, including technology concerns, time constraints, and a lack of institutional support (Elameer, 2012).

As daily users of this platform, we argue that Moodle's popularity stems from its versatility and flexibility. It offers a user-friendly interface, facilitates the creation and management of online courses, supports the delivery of content in various formats, enables evaluations, and efficiently tracks students' progress. Additionally, its open-source architecture makes it a versatile tool for enhancing teaching and learning processes, as it can adapt to changes and integrate with other educational technologies. (Asamoah & Oheneba-Sakyi, 2024; Mutezo & Maré, 2023; Olugbade et al., 2023).

El-Bahsh and Daoud, in 2016, found out that the vast majority of the Moodle tools for instruction and learning are the tools of content management, online discussion forums, and wikis. A private messaging and real-time chatting feature in Moodle can also interact with instructors and students. Apart from the above tools, Moodle also provides online assessment tools in the form of online quizzes, which can be deployed to test how well students understand the course material. It supports assignment submissions and facilitates instructors' electronic grading and feedback (Bock, 2022).

Moreover, Deliwe (2020), points out the gains in using Moodle resources for teaching and learning in enhancing engagement, speedy feedback, and collaboration achieved through wikis and discussion boards. In contrast, a study by Prasetya and Raharjo (2020) found that the demotivating factors affecting student involvement in Moodle-based online learning included unsatisfactory online learning experiences, difficulties in setting up online classrooms, limited course content, and a lack of interest in the course. Now that a general overview of Moodle's potential has been provided, the following paragraphs focus on literature that is more specific and aligned with the research questions in this study by providing a discourse on lecturers' responsiveness toward using tools within Moodle for teaching and learning.

### **Responsiveness of lecturers to using Moodle for teaching and learning**

Scholarly works have extensively examined the responsiveness of lecturers to using Moodle for teaching and learning, shedding light on the benefits and challenges associated with its implementation.

For instance, Pedro et al. (2018) conducted a study to establish the relationship between perceived quality (PQ) and satisfaction in higher education. The findings demonstrate that, despite Moodle's enormous potential, it is primarily utilised as a material repository. Additionally, lecturers understand how crucial it is to utilise this platform's other features to support the success of the teaching and learning process. A Ghanaian study by Asamoah and Oheneba-Sakyi (2024) reported that lecturers had a positive attitude toward using Moodle; however, several challenges, such as technical and infrastructural issues, were identified. A study was conducted to examine the impact of online leadership on student achievement and satisfaction, and it was discovered that lecturers' online leadership styles boost communication with students and enhance students. Furthermore, Widodo and Slamet (2021) examined lecturers' views of e-learning using Moodle for post-graduate students. They found that Moodle helped lecturers collaborate with students effectively, enhanced teaching with online supplementary activities, and provided a place to create information about their courses easily. Furthermore, the researchers found that lecturers were optimistic about using Moodle for teaching.

In another study conducted to examine the impact of online leadership on student achievement and satisfaction, it was discovered that lecturers' online leadership styles boost communication with students, enhance student learning, and increase the quality of lecturers' teaching in higher education (Coa, 2022). The study emphasised that lecturers who were responsive to students' queries and needs through Moodle demonstrated improved student engagement and satisfaction. Similar findings were reported by Martin et al. (2020) and Biresaw and Bogale (2023), who emphasised lecturers' importance in promptly addressing student queries and providing constructive feedback on assignments and discussions within Moodle. It has been found that responsive feedback enhances students' engagement, motivation, and learning outcomes in online courses (Aljeeran, 2016; Estacio & Raga, 2017; Farooq, 2022; Gamage et al., 2022; Karkar et al., 2020; Kesuma, 2023; Nafidi & El-Batri, 2023; Nguyen, 2023; Seage & Türegün, 2020).

### **Lecturers responsiveness to Moodle for teaching and learning**

According to Salmon (2019), the lecturers appreciated Moodle's flexibility in encouraging responses and enhancing their teaching skills. They also valued the ability to tailor learning resources, provide effective and timely feedback, and monitor students' progress. On the other hand, professors are worried about issues with workload management and using too much time to address learners' inquiries. In other words, what is essential is that lecturers were supported through continuous training in using Moodle's communication tools for responsive teaching (Elameer, 2012; Hodges et al., 2020; Prasetya, 2023). Lecturers' posting of replies via Moodle was critical to the student variables of engagement, satisfaction, and achievement of learning outcomes (Liman, 2021). It was also reported that instructional quality highly impacts student performance, and variables such as gender, age, and experience affect how Moodle adoption varies (Wichadee, 2015). Lecturers acknowledged the need to engage in active interactions with

students to develop a feeling of community while creating a welcoming and collaborative learning environment. Next, the challenges of Moodle are unpacked and related to its use for teaching and learning.

### **Challenges with Moodle to hamper teacher and learning**

Scholarly articles reported that the Moodle platform revealed several challenges for the faculty and support personnel (Asamoah & Oheneba-Sakyi, 2024; Bock, 2022; Hudrea et al., 2023). This also connects to technical problems—be it through the navigation of the features or troubleshooting (Asiimwe, 2015). Adapting to online learning was also claimed to be full of challenges. These included the unavailability of technical infrastructure, digital divide, connectivity issues, and competencies and pedagogies for distance and online learning. Extensive documentation and adequate technical support channels are essential in helping professors solve problems promptly (Martin et al., 2020). Other critical problems relate to time management and tasking; they are significant problems the teaching faculty deals with. Successfully resolving these issues requires effective time management strategies and proper resource and support allocation (Hudrea et al., 2023; Vaughan, 2007). Continued professional development is also necessary to keep employees and lecturers up to date with technology advancements and shifting pedagogical approaches (Uzorka et al., 2023). This suggests that overcoming resistance to change and fostering a culture of innovation and digital pedagogy are crucial prerequisites for enhancing responsiveness on Moodle (Chawinga, 2017; Josua & Kanyemba, 2023; Kela et al., 2023; Koi-Akrofi et al., 2020). Apart from problems related to the network, which are still part of the problem, students were not in a position to assess their learning capacities because of a lack of feedback once a task was submitted (Bock, 2022; Cabero-Almenara et al., 2019).

## **METHODOLOGY**

*Research Design:* The present study was underpinned by an interpretative paradigm as proposed by Myers (2008) and Saunders et al. (2012) because it offers a richness of detail when investigating specific contexts of focus for the research study. To embrace this paradigm, a descriptive case study research design was used to fill this gap; this design enables the collection of detailed data on a phenomenon in its natural setting. This design was used to understand this unique case and fully dissect its peculiarities. The qualitative data were collected by interviewing because, in this way, it is possible to obtain detailed and rich information from the participants. These interviews were taped, transcribed, and analysed thematically afterwards for this research. This analytical approach helped nominate a repeated pattern in the perceived themes. Therefore, the situation of the reported case and significant concerns and experiences can be realised and understood.

### ***Sample and Data Collection***

*Participants:* The sampling method used in the study was purposive, a non-probability sampling technique. According to Patton (2002), it involves selecting people with specific characteristics

or knowledge that would enable them to contribute to the investigation. Inclusion criteria in the choice of participants were guided by their speciality or profession and experience at faculties in the institution under study.

**Table 1.**

*Biographical information of participants*

| Participant ID    | Faculty        | Role          | Sex | Age | Educational Background     |
|-------------------|----------------|---------------|-----|-----|----------------------------|
| Commerce A1       | Commerce       | Lecturer      | M   | 45  | PhD in Business Management |
| Commerce B1       | Commerce       | Support Staff | F   | 38  | Master's in Management     |
| Human Sciences A2 | Human Sciences | Lecturer      | F   | 50  | PhD in Education           |
| Human Sciences B2 | Human Sciences | Support Staff | M   | 42  | Master's in Psychology     |
| Education A3      | Education      | Lecturer      | M   | 33  | PhD in Education           |
| Education B3      | Education      | Support Staff | F   | 29  | Master's in Education      |
| Education A4      | Education      | Lecturer      | F   | 40  | Master's in Education      |

Source: Bock & van Wyk (2024)

Details of participants in the study are provided in Table 1, classified against faculty, role, sex, age, and educational level. The table includes seven participants from three faculties: Commerce, Human Sciences, and Education. On the part of the commerce faculty, there are two Lecturers and one Support Staff, aged 33 to 45 years, with qualifications ranging from PhD in Business Management to Master's in Management. The Human Sciences faculty has two Lecturers and one Support Staff, aged between 42 and 50, with educational backgrounds including a PhD in Education and a Master's in Psychology. The Education faculty features two Lecturers and one Support Staff, aged 29 to 40, with either a PhD or Master's in Education. This detailed breakdown provides insight into the diverse professional and educational profiles of the participants involved in the study.

### **Data Collection**

Data were sourced through in-depth virtual interviews via MS Teams. These were booked from 1 July 2022 to 14 July 2022, and the interviews were approximately 30 minutes in length; this was an excellent timeframe to enable data collection on the participants from the different faculties (Brennan, 2013).

### **Sampling Method**

In this research, a non-probability sampling method known as purposive sampling was applied to select the most knowledgeable respondents about the subject of study. This design is

appropriate for qualitative research, mainly concerned with detailed, in-depth (thick description) and detailed information from particular persons with specific experiences. As reported by Creswell and Plano Clark (2011), the criteria used to select participants included their role within the faculty, the experience related to the focus of the study, and their willingness to participate (Creswell, 2014).

### ***Criteria for Selection***

The participants were required to be full-time lecturers or support staff, as outlined by Patton (2002). Additionally, they needed to have at least two years of work experience in their respective fields. Participants were selected based on their relevance to the study's focus and ability to provide in-depth insights (Creswell & Plano Clark, 2011). The selection criteria were chosen to ensure that participants could offer informed perspectives relevant to the research questions, providing a deep understanding of the subject matter (Flick, 2018).

The questions were designed to generate extensive information relevant to the study's focus. Questions were developed based on the study's objectives and the literature review. In addition, an expert review and pilot test were made for the study to ensure the face validity of the questions. In the event, the questions were reviewed by two faculty learning management experts to ensure the alignment of the research objectives with the questions. Furthermore, considering the comments received, two participants piloted a test to refine and validate the questions applied (Creswell, 2014).

### ***Data Analysis***

The process involved several essential steps, with all details carefully considered and analysed to ensure a thorough and accurate interpretation. The interviews were transcribed verbatim to preserve the participants' responses in their original form (Creswell & Plano Clark, 2011). The transcribed data were then systematically coded to identify recurring themes and patterns, which were analysed using thematic analysis to provide meaningful insights related to the research questions (Braun & Clarke, 2006). In-depth interviews conducted via MS Teams, with their open-ended format, offered flexibility and structure, aligning with the thematic framework and supporting the descriptive nature of the study (Brennan, 2013).

Several measures were implemented to address potential biases and enhance the reliability of the findings. The recorded interviews were analysed using thematic analysis. Following the procedures proposed by Patton, multiple researchers, including the co-authors, first verified all identified themes in relation to the participants' extracts. After that, the interviews, interview protocol and generated data sets were emailed to one professor who is an expert in the qualitative approach, independently verified that coded data and the generated themes are a true reflection and to ensure inter-coder reliability and consistency is triangulated (Patton, 2002). The data sets (transcripts) and identified themes were also sent to participants for member checking (participant validation). This allows participants to review and provide feedback on the findings to ensure accuracy and credibility (Lincoln & Guba, 1985; Yin, 2014).



The coding process was well-documented, with detailed records kept to provide transparency and stability. This rigorous approach to the coding process maintains the trustworthiness and dependability of the data, allowing the research findings to represent accurate perspectives from the participants' data (Braun & Clarke, 2012; Nowell et al., 2017). The section criteria were chosen to ensure that participants could offer informed perspectives relevant to the research questions, providing a deep understanding of the subject matter (Flick, 2018).

### ***Ethical considerations***

The university's research committee, through the Office of the Registrar at the main campus in Windhoek, Namibia, granted permission to collect data from participants from April to August 2021. This study upheld applicable ethical principles by ensuring informed consent, prioritising benefits over harm, respecting dignity, safeguarding welfare, and prioritising the best interests of the participants. It protected the well-being of the participants and ensured that no form of harm occurred to the participants in the data collection process. Participants gave informed consent, which guaranteed they agreed to participate voluntarily. More measures to protect anonymity included de-identifying recorded voices and using pseudonyms assigned to participants in transcription. A letter of consent via email was inclusive and included information about who the researcher was, as well as information regarding the study itself. Informed consent was obtained from the participants through an electronic signature. Delegates had full rights to participate voluntarily, but before participating in the research, they had to fill in an informed consent document.

## **FINDINGS**

The study findings are presented here under the key themes identified from the thematic analysis. Views by lecturers and support staff regarding their responsiveness to Moodle, challenges, and responses to students' queries and needs are shared in the findings. Every theme has suggested a part of the lecturers' experience and the effectiveness of Moodle as a learning platform. Examples of such themes identified through thematic analysis include lecturers' views concerning Moodle responsiveness, challenges in using the platform, and strategies for the lecturers to respond to the queries and needs of the students.

### **Theme 1: Views on Responsiveness to Moodle**

Lecturers view blended learning positively due to students' ownership of studies, flexibility, self-directed learning, e-learning readiness, motivation, and task completion time. It has been reported that the above variables add to lecturers' responsiveness to Moodle for teaching and learning. However, the challenges of blended learning hinder lecturers' responsiveness to Moodle for teaching and learning. Challenges that hinder lecturers' responsiveness to Moodle for teaching and learning include the issue that lecturers feel lost in managing their online course, isolated internet access issues, lecturers needing more training for Moodle tools and online teaching, managing heavy workloads and uncertainties about facilitating online teaching.

For example, some lecturers reported feeling overwhelmed by the management of their online courses. *"I often feel lost when trying to manage my online course,"* said Commerce Lecturer A1. *"The issues with internet access and a lack of training for Moodle tools only make it harder,"* they added. Education Lecturer A3 shared similar concerns: *"The lack of computer devices for internet access is a significant problem. The university should look into providing affordable laptops or devices for students."* The issue of the digital divide experienced by some students was raised. Despite providing affordable wireless internet modems, some students still lacked access to a device, such as a computer or laptop, to connect to the Internet. Commerce Lecturer A1 stated, *"Uhm, I think the university, after making a deal with Telecom to offer Internet devices, that was assumed that all students could have access to the Internet now. However, if we are generally being honest, the digital divide is an invisible enemy."* Education Lecturer A3 expressed concern about the lack of computer devices for internet access and suggested that the university further investigate this issue, such as by providing affordable laptops or devices for schoolwork.

Despite agreements with MTC to provide students with off-campus internet access, a gap persisted due to insufficient data provision, the digital divide, and online learning readiness. Human Sciences Support staff B2 stated, *"Some students never used their student Webmail. They never used Microsoft Teams, and they hardly go onto Moodle. You know, I don't think we are ready because our students are not ready."* The Commerce support staff member B1 commented, *"I just wanna say that not all our students have access to online learning."* Education support staff member B3 added, *"We left out many students last year, and we also had to return students, and even with the returning students, there were still some of those students that did not have access to all the resources on e-learning."*

Although staff members generally appreciated the university's efforts to negotiate with MTC for affordable internet access, Moodle users at the university continued to experience slow page loading times. *"The slow page loading and data issues often make it challenging to use Moodle effectively,"* remarked Human Sciences Lecturer A2. Lecturers and students frequently reported running out of data or facing expired time limits for online assessments due to poor connectivity. This unstable internet connection affects Moodle's performance, particularly for those accessing it from off-campus or remote areas. *"When the internet connection is poor, it hampers our ability to use Moodle effectively,"* said Education Lecturer A4.

## **Theme 2: Challenges Faced by Lecturers**

The second theme explores lecturers' various challenges while using the Moodle platform, focusing on the sub-themes: increased workload and its impact on staff wellness, challenges with new course design and structure on the Moodle platform, limited availability of technical support, and issues with accessibility to online learning resources and facilities. Each sub-theme addresses specific difficulties lecturers encounter with the Moodle platform, including increased workload, resistance to new course designs, inadequate technical support, and issues accessing resources and facilities.

### ***An increase in the workload of lecturers is leading to staff wellness***

Blended learning using Moodle increases lecturers' workload, leading to psychological and health issues and suggesting potential negative consequences on staff well-being. Education Lecturer four expressed the need and expectation for after-hours support despite her personal decision not to seek support outside of office hours. She (Education lecturer A4) stated, *"I try only to seek support during office hours... sometimes you know we work on a Sunday afternoon to prepare for something on Monday because it is the teaching profession and it is not like from eight to five always...it would be advantageous if our technical staff could also be available after-hours."* The above excerpt provides evidence of workload frustration and the lack of after-hour technical support services.

### ***Clarity of new course design and structure suitable for the Moodle platform***

The interview findings revealed that the design and structure of Moodle courses varied among faculties. It was also discovered that new templates for course design had been proposed, but the initiative was not well received by faculty members, who preferred to stick with the old template. Adopting the new course design template was optional, allowing faculty members to use their discretion in designing and structuring Moodle courses. According to Lecturer 1, the faculty's decision not to adopt the new course design templates showed resistance to change. Challenges stem from dissatisfaction with course design, reluctance to adopt new design templates, and a need for collaboration between stakeholders to enhance course design quality. The following was commented on (Commerce Support staff B1): *'It looks like each faculty has their template for online course designs. Every time we try to introduce a new template, some lecturers may not be comfortable moving forward in addition to that. They want to use old templates.'* (Commerce Support Staff member B1)

### ***Availability of human capital providing technical support***

They have limited technical support staff availability for Moodle assistance during and after office hours, resulting in challenges for students and lecturers. Continuous technical support is crucial for practical platform usage. Technical support services were identified as crucial for conducting online assessments. Tests are scheduled after hours to provide flexible opportunities for distance students to participate in assessments. However, the lack of a dedicated technical support team to assist with online exams resulted in cancelled assessments if technical support staff could not be reached. Administrative Coordinator (Human Science B2) reported, *"Most of our courses or assessments run in the evenings. That's when the distance student can do these assessments."* The support staff member two also stated, *"...if not, when that phone call I am now placing is unanswered. Then the support is not rendered...it will then result in a trickle-down effect on my operations, being halted generally, or test cancellations."*

### ***Accessibility to online learning resources and facilities***

Participants were asked to share their thoughts on the university's strategy for providing access to online learning resources. They agreed that there were several laboratories and ICT rooms on the university campus, but using these facilities was problematic, particularly regarding who

would be responsible for any damage or loss of equipment. It was reported that campus control maintained strict surveillance over access to these facilities. Some students lack access to devices and reliable internet connectivity, impacting their ability to engage with Moodle effectively. Challenges related to computer access also affect learning resource availability. It was stated that most of Moodle's performance issues were due to poor external network access. Many students had difficulty loading pages due to unstable or slow internet connections when accessing Moodle from off-campus. It was also remarked (Education Lecturer A3), *"The online system requires internet access. Poor external network access will inevitably slow performance even if the system runs on the fastest possible hardware."* Another issue with the system's performance was described by a lecturer, who expressed concern about Moodle's ability to effectively and promptly conduct online assessments. The Human Sciences lecturer A2 stated, *"My only concern is with the tests on Moodle. The system is unable to effectively and promptly conduct our online assessments. Assessments will queue for days before they are finally uploaded."*

Regarding training, the university was advised to implement Moodle training in smaller groups and at the departmental level. *"The current training sessions are too lengthy,"* said Education Lecturer A4. *"We would prefer having someone trained in our department who can then offer training at the departmental or faculty level."* Additionally, it was suggested that face-to-face training opportunities could provide more practical engagement. One lecturer proposed, *"It would be beneficial if lecturers were assigned mentors to assist with Moodle. Also, technical issues should be addressed within departments, and there should be clear guidelines for optimising Moodle use based on specific courses and programmes."*

### **Theme 3: Responses to Student Queries and Needs**

Theme 3 examines the role and utilisation of Moodle's communication tools, highlighting how lecturers recognise their value for student interaction and information dissemination but often prefer alternative communication methods. Lecturers acknowledged the utility of Moodle's Announcement and Messaging tools, particularly during the COVID-19 pandemic. Human Sciences Lecturer A2 remarked, *"The Announcement tool was quite useful for broadcasting important updates, especially when face-to-face interactions were limited."* Despite this, the interview findings revealed that these tools are underutilised by lecturing staff. Commerce Lecturer A1 explained, *"Despite having these tools available, many of us still lean towards using email or WhatsApp for communication. It seems these methods are more immediate and reliable for reaching students."*

Another lecturer, Education Lecturer A3, elaborated on their preference for alternative methods: *"I get quicker responses through email or social media than Moodle's Messaging tool. Students seem more responsive to these methods, making them more practical for urgent communication."* This preference for alternative communication channels suggests that Moodle's tools are not fully integrated into daily practices. *"I often find myself resorting to*

*traditional methods like SMS or direct calls when Moodle does not suffice,”* added Human Sciences Lecturer A2.

Efforts to improve Moodle's effectiveness could benefit from providing targeted orientation and training to lecturers and students. *“We need more comprehensive training on how to leverage all the features of Moodle effectively,”* emphasised Human Sciences Support Staff B2. *“A better understanding of the tools available could significantly enhance communication and engagement.”* Commerce Lecturer A1 suggested, *“It would be helpful if regular workshops or sessions focused specifically on Moodle's communication tools, perhaps demonstrating their benefits and practical applications.”*

The thematic analysis underscores the need for enhanced training and support to maximise the potential of Moodle's communication features. *“Implementing a structured orientation programme that includes hands-on practice with Moodle's tools could bridge the current gap in their usage,”* recommended Education Support Staff B3. This will ensure that lecturers and students alike are competent in navigating the platform and using it effectively for teaching and interaction.

The following section provides discourse on the findings of the inquiry under investigation.

## DISCUSSION

Studies identified that the responsiveness of the lecturer, as well as support teaching staff, is one of the prerequisite factors for establishing of Moodle as an effective online teaching and learning environment (Angula & Mutelo, 2021; Asamoah & Oheneba-Sakyi, 2024; Bock, 2022). Additionally, Pedro et al. (2018) identify how responsiveness creates a positive learning atmosphere, linking to student satisfaction. Thematic analysis confirms this view but also raises concerns relevant to good communication and interactivity within the Moodle platform, which, if not dealt with, might go on to impact the Moodle user experience. The findings of the interviews underline the possible underutilisation of Moodle's communication potential for interaction. This is a matter of concern that the Namibian institution needs to be addressed urgently. This is quite a surprise because, on the other hand, researchers point out the capacity of Moodle to enhance two-way communication and interaction—something that, according to literature, is indispensable. Furthermore, Cao (2022) stresses that Moodle's presence facilitates timely communication and enhances interactions and engagements on the LMS. On the other hand, Martin et al. (2020) and Biresaw and Bogale (2023) have intense foci on prompt feedback and constructive criticism via Moodle, which, again, is related to the responsive lecturer. The contributions of the latter studies describe Moodle as a site of active engagement and cooperation between teachers and students (Angula & Mutelo, 2021; Asamoah & Oheneba-Sakyi, 2024; Bock, 2022). On the other hand, the analysis mirrored barriers to lecturer and support staff responsiveness within Moodle, thus ratifying existing literature. Both studies by Aljeeran (2016) and Karkar et al. (2020) reported that complexity exists in some specific Moodle

tools, which is a source of frustration and discouragement for platform users. Moreover, Estacio and Raga (2017) further warned that frequent usage of Moodle tools could negatively correlate to course performance, thus requiring a balanced need to adopt tools. One particular challenge Asamoah and Oheneba-Sakyi (2024) raise is lecturers' technical proficiency as a primary determinant of exploiting Moodle features and timely student support. In this regard, Onchwari and Keengwe (2017) supported the latter and reported that technical competence is vital to effectively utilising Moodle. Moreover, Rezaei et al. (2015) concurs that students have different propensities to engage in online discussions. The variation in the responsiveness of the faculty members corresponds to Saleem et al. (2016). The findings and literature confirm the developing realisation of Moodle as a robust learning management system (LMS) in the Namibian HE, building from earlier studies by Gamage et al. (2022) and Martin et al. (2020), respectively, on the potential for this platform to advance the engagement of students and to provide feedback promptly. In our research at the Namibian University, some peculiar challenges agreed with those documented by Estacio and Raga (2017) and Onchwari and Keengwe (2017) in problems unique to technical expertise and some of the tools within Moodle. The findings of this study reported some benefits associated with using Moodle resources in teaching and learning, including increased engagement and speedy feedback. The discussion also showed that pedagogical approaches interplay with Moodle use; as Estacio and Raga (2017) suggested, the quality of instruction has the most significant impact on student outcomes. Furthermore, it emerges that lecturers' opinions about the responsiveness of Moodle to teaching and learning are positive. These views agree perfectly with the available literature, fully capturing how teachers perceive their interaction within the Moodle space (Angula & Mutelo, 2021; Asamoah & Oheneba-Sakyi, 2024; Bock, 2022). Factors relating to the motivation and time to complete tasks are supported by students' motivation and time management skills (Asamoah & Oheneba-Sakyi, 2024).

## CONCLUSION

The study provides valuable contextual insights into the challenges faced by the Namibian university under study, as well as other Namibian universities using the Moodle LMS platform, including poor internet connectivity and limited technical support—factors often overlooked in studies from more developed regions. This study contributes to the knowledge and improvement of Moodle as an online LMS for teaching and learning practices within the higher education system in Namibia, particularly at the university under study. The findings assessed lecturer and support staff responsiveness in the context of Moodle for quality delivery of teaching and learning. The study identified the barriers to the complexity of Moodle tools, workload issues, and low usage of communication tools, all of which directly relate to student [dis] satisfaction or [dis]engagement. Therefore, the study offers valuable contextual insights into the issues at the Namibian university under study. This Namibian university has to deal with poor internet connectivity and a lack of technical support, often not considered in

studies from more developed regions. This study again reinforces a crucial aspect of effective communication and social presence in online learning, thus validating global educational frameworks like the Community of Inquiry within a Namibian context. The practical recommendations, like a hybrid approach to Moodle orientation and training, give strategies with actionable points to follow toward improving the effectiveness of Moodle as a learning management system. It fills, in this way, a literature gap. The study is a stepping stone for further studies on the pedagogical dimensions of Moodle use in establishing improved e-learning strategies and outcomes within different educational contexts. Guided by the paradigm of interpretation, our investigation into lecturer and support staff responsiveness resulted in the gross underutilisation of Moodle's communication tools, contrasting with its recognised potential to promote two-way communication and interaction. The study's results corroborate with the Community of Inquiry framework—that is, establishing a social presence and effective communication as critical elements in online learning environments.

### **Recommendations**

This study has implications of great magnitude in all the aspects of the Namibian university's e-learning strategy and hence seriously speaks to the call for further strengthening, thereby benefiting Moodle users by following their needs and expectations. As a matter of urgency, a need to plan training in Moodle orientation for staff and students. In collaboration with the instructional designers, the NUST Teaching and Learning Unit should develop comprehensive Moodle orientation and training programmes, including a compulsory two-day face-to-face orientation at the beginning of each semester for the first-years and senior students interested in the e-learning system. Finally, an open education resource (OER), Moodle tutorial and a video repository should be designed to enable students to catch up with the university's e-teaching and learning platform and familiarise themselves with the full range of interactional tools at the disposal of students and novice lecturers.

### **Limitations**

While it has emerged that the study has revealed a lot, it is not without its limitations. The findings are context-specific and mainly applied to one Namibian university, which lowers their generalisability to other institutions. This was a qualitative study; therefore, by design, it did not allow comprehensive quantitative analysis that might have enriched the findings. Furthermore, this study has not researched pedagogical practices about Moodle, which might have added to the holistic understanding of its influence on teaching and learning. Also, the reliance on self-reported data is related to a higher degree of bias and inaccuracy; thus, results should be handled cautiously.

### **Ethics Statements**

The IRE Board of UNICAF University granted ethics approval, and the NUST permitted the study. All participants in this study provided written consent.

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## REFERENCES

- Abbad, M. M. M. (2021). Using the UTAUT model to understand students' usage of e-learning systems in developing countries. *Education and Information Technologies* 26, 7205–7224 (2021). <https://doi.org/10.1007/s10639-021-10573-5>
- Aljeeran, R. (2016). *The role of socio-cultural factors in faculty members' acceptance of Moodle at GUST*. (Doctoral dissertation, The Ohio State University). <https://www.proquest.com/dissertations-theses/role-socio-cultural-factors-faculty-members/docview/1874562453/se-2?accountid=188730>
- Al-Samarraie, H., Teng, B. K., Alzahrani, A. I., & Alalwan, N. (2018). E-learning continuance satisfaction in higher education: a unified perspective from instructors and students. *Studies in higher education*, 43(11), 2003-2019. <https://doi.org/10.1080/03075079.2017.1298088>
- American Psychological Association. (2016). *Ethical principles of psychologists and code of conduct*. <https://www.apa.org/ethics/code/ethics-code-2017.pdf>
- Angula, N., & Mutelo, S. (2021). The usage of e-learning challenges in the Namibia educational institutions: A Namibian experience during Covid-19. *International Journal*, 1(1), 31-34. [https://www.bohrpub.com/journals/BIJSCIT/BIJSCIT\\_20212107](https://www.bohrpub.com/journals/BIJSCIT/BIJSCIT_20212107)
- Ara, F., & Vijaysimha, I. (2022). Online Learning in Low-tech environments–What works, what doesn't? A study based on Indian public schools. *International Journal of E-Learning & Distance Education/Revue internationale du e-learning et la formation à distance*, 37(2). <https://doi.org/10.55667/ijede.2022.v37.i2.1265>
- Asamoah, M. K., & Oheneba-Sakyi, Y. (2024). Factors influencing the willingness, and reluctance of lecturers to embrace learning management systems in two selected ghanaiian universities. *E-Learning and Digital Media*, 21(4), 387-405. <https://doi.org/10.1177/20427530231156172>
- Asiimwe, E. (2015). MLCMS actual use, perceived use, and experiences of use. *International Journal of Education and Development using ICT*, 11(1). <https://www.learntechlib.org/p/151054/>
- Babalola, E. O., Otunla, F. L., & Omolafe, E. V. (2023). Undergraduates' level of acceptance and utilization of Moodle platform for learning during Covid-19 pandemic. *Indonesian Journal of Multidisciplinary Research*, 3(1), 31-40. <https://doi.org/10.17509/ijomr.v3i1.45194>



- Badaru, K., & Adu, E. (2022). Platformisation of Education: An Analysis of South African Universities' Learning Management Systems. *Research in Social Sciences and Technology*, 7(2), 66-86. <https://doi.org/10.46303/ressat.2022.10>
- Bilousova, L., Kolgatina, L., & Kolgatin, O. (2023). How can we encourage students to manage their own learning? *Ukrainian Journal of Educational Studies and Information Technology*, 11(1), 55–65. <https://doi.org/10.32919/uesit.2023.01.05>
- Biresaw, A., & Bogale, B. (2023). Web-based feedback system and the development of reading skills. *Education and Information Technologies*, 1-17. [http://www.journals-jd.upm.edu.my/resources/files/Pertanika%20PAPERS/JST%20Vol.%2031%20\(1\)%20Jan.%202023/34%20JST-3583-2022.pdf](http://www.journals-jd.upm.edu.my/resources/files/Pertanika%20PAPERS/JST%20Vol.%2031%20(1)%20Jan.%202023/34%20JST-3583-2022.pdf)
- Bock, J. T. (2022). *The effective use of Moodle as a learning management system at Namibia University of Science and Technology*. Unpublished doctoral dissertation, UNICAF University. Zambia. [https://cdn.unicaf.org/websites/unicaf/wp-content/uploads/2023/09/cACT83Gz-Jacqueline-Bock-FINAL-thesis\\_compressed-1.pdf](https://cdn.unicaf.org/websites/unicaf/wp-content/uploads/2023/09/cACT83Gz-Jacqueline-Bock-FINAL-thesis_compressed-1.pdf)
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). <https://doi.org/10.1037/13620-004>
- Brennan, K. A. (2013). *Best of both worlds: Issues of structure and agency in computational creation, in and out of school* (Doctoral dissertation, Massachusetts Institute of Technology). <https://dspace.mit.edu/handle/1721.1/79157>
- Bulut, M., & Arikan, A. (2015). Socially responsible teaching and English language course books: Focus on ethnicity, sex and disability. *E-Journal of Yasar University*, 10, 13-20. <https://doi.org/10.19168/jyu.46053>
- Cabero-Almenara, J., Arancibia, M., & Del Prete, A. (2019). Technical and didactic knowledge of the Moodle LMS in higher education. Beyond functional use. *Journal of New Approaches in Educational Research (NAER Journal)*, 8(1), 25-33. <https://www.learntechlib.org/p/207147/>
- Cao, W. (2022). Correlation of University Lecturer Leadership Styles, Students Satisfaction, and Learning Outcomes During the COVID-19 Pandemic. *International Journal of Technology-Enhanced Education (IJTEE)*, 1(1), 1–17. <http://doi.org/10.4018/IJTEE.308468>
- Castellanos-Reyes, D. (2020). 20 Years of the Community of Inquiry Framework. *TechTrends*. 64. 1–4. [https://www.researchgate.net/publication/340119318\\_20\\_Years\\_of\\_the\\_Community\\_of\\_Inquiry\\_Framework](https://www.researchgate.net/publication/340119318_20_Years_of_the_Community_of_Inquiry_Framework)
- Chambi, J., Donayre Vega, J., Farfán, K., Panduro, B., Mamani, Y., Hoces, W., Antecristo, C., & Dayupay, J. (2023). Perceived Motivational Effects of Mobile Learning Technique to

- Higher Education Students: An Exploratory Study. *World Journal of English Language*, 13(3), p210. <http://dx.doi.org/10.5430/wjel.v13n3p210>
- Chawinga, W. D. (2017). Taking social media to a university classroom: Teaching and learning using Twitter and blogs. *International Journal of Educational Technology in Higher Education*, 14(1), 3. <https://doi.org/10.1186/s41239-017-0041-6>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE.
- Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research*. (2nd ed.). Thousand Oaks, CA: Sage.
- 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>
- Demery, M. J. (2022). *School Leadership in culturally responsive pedagogy and reading achievement: A basic qualitative study* (Doctoral dissertation, Capella University). <https://www.proquest.com/openview/7f39721ccfdb234964919c7fff98ad84/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Denzin, N. K., & Lincoln, Y. S. (2005). *The Sage Handbook of qualitative research* (3rd ed.). Sage Publications Ltd.
- Dubey, P., Pradhan, R. L., & Sahu, K. K. (2023). Underlying factors of student engagement in E-learning. *Journal of Research in Innovative Teaching & Learning*, 16(1) 17- 36. <https://doi.org/10.1108/JRIT-09-2022-0058>
- Elameer, A (2012). From Khan Octagon E-Learning to the Orbital E-Education - A new E-Education framework for Iraqi Higher Education (IHE). *International Journal of the Computer, the Internet and Management*, 19(2): 23–24. <https://rb.gy/bcpop>
- El-Bahsh, R., & Daoud, M. (2016). Evaluating the use of Moodle to achieve effective and interactive learning: A case study at the German Jordanian University. In *Proceedings of the 35th annual IEEE International Conference on Computer Communications* (pp. 1-5). <https://tinyurl.com/2p8f4mzb>
- Elkaseh, A. (2015). The acceptance of E-learning as a tool for teaching and learning in Libyan Higher Education. *International Journal of Information Technology (IJIT)*, 3(4), 1–11. <http://www.ipasj.org/IJIT/IJIT.htm>
- Estacio, R. R., & Raga Jr, R. C. (2017). Analyzing students online learning behavior in blended courses using Moodle. *Asian Association of Open Universities Journal*, 12(1), 52-68. <https://www.emerald.com/insight/content/doi/10.1108/AAOUJ-01-2017-0016/full/pdf>
- Farooq, M. (2022). Exploring students' experiences of Moodle to facilitate their learning. *Diversity, Inclusion and Equity: Synergies and Challenges In The Wake Of Covid-19*, pp. 1, 46. <https://ilpg.zu.edu.pk/wp-content/uploads/2022/07/JLAHS-1.1.pdf#page=48>

- Flick, U. (2018). *Introduction to quality research* (6th ed.). Sage Publications Ltd.
- Gamage, S. H., Ayres, J. R., & Behrend, M. B. (2022). A systematic review on trends in using Moodle for teaching and learning. *International Journal of STEM Education*, 9(1), 1-24. <https://doi.org/10.1186/s40594-021-00323-x>
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105. <https://www.academia.edu/download/51046621/j.i.heduc.2004.02.00120161224-26425-13c6i1w.pdf>
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87–105. [https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)
- Goyal, S., Khaliq, F., Vaney, N. (2023). Implementation of the online learning management system 'Moodle' as a blended approach to online teaching. *Indian Journal of Physiology and Pharmacology*, pp. 67, 64–72. [https://doi:10.25259/IJPP\\_208\\_2022](https://doi:10.25259/IJPP_208_2022)
- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *The Handbook of blended learning: Global perspectives, local designs* (pp. 3-21). Pfeiffer. [http://curtbonk.com/graham\\_intro.pdf](http://curtbonk.com/graham_intro.pdf)
- Greaney, A. M., Sheehy, A., Heffernan, C., Murphy, J., Mhaolrúnaigh, S. N., Heffernan, E., & Brown, G. (2012). Research ethics application: A guide for the novice researcher. *British Journal of Nursing*, 21(1), 38–43. <https://doi.org/10.12968/bjon.2012.21.1.38>
- Hodges, T. S., Kerch, C., & Fowler, M. (2020). Teacher education in the time of COVID-19: Creating digital networks as university-school-family partnerships. *Middle Grades Review*, 6(2), Article 4. <https://scholarworks.uvm.edu/mgreview/vol6/iss2/4>
- Hudrea, A., Spoaller, D., & Urs, N. (2023). Digital tools in Romanian higher education: The influence of the COVID-19 pandemic on the digitalization of universities. *Transylvanian Review of Administrative Sciences*, 19(69), 44-63. <http://dx.doi.org/10.24193/tras.69E.3>
- Ithindi, E. T. (2019). *The use of Moodle as an e-learning tool for English language teaching and learning in Namibia* (Doctoral dissertation). The University of South Africa. [https://uir.unisa.ac.za/bitstream/handle/10500/26221/thesis\\_ithindi\\_et.pdf?sequence=1&isAllowed=y](https://uir.unisa.ac.za/bitstream/handle/10500/26221/thesis_ithindi_et.pdf?sequence=1&isAllowed=y)
- Josua, L. M., & Kanyemba, S. (2023). Technology as a Key Driver in Enhancing Scientific Education during the Covid-19 Era at the University of Namibia. *Journal of Learning for Development*, 10(1), 109–121. <https://doi.org/10.56059/jl4d.v10i1.854>
- Kazondovi, C., Isaacs, A., & Lwendo, S. B. (2022). The challenges distance education students experience during their education degree program in the Faculty of Education at the University of Namibia. *Higher Education Studies*, 12(2), 54. <https://doi.org/10.5539/hes.v12n2p54>

- Kaisara, G., & Bwalya, K. J. (2022). Trends in Mobile Learning Research in Sub-Saharan Africa: A Systematic Literature Review. *International Journal of Education and Development Using Information and Communication Technology*, 18(2), 231-244.  
<https://files.eric.ed.gov/fulltext/EJ1359990.pdf>
- Karkar, A. J. M., Fatlawi, H. K., & Al-Jobouri, A. (2020). Highlighting E-Learning adoption challenges using data analysis techniques: The University of Kufa as a case study. *Electronic Journal of E-Learning*, 18(2), 136-149.  
<https://doi.org/10.34190/EJEL.20.18.2.003>
- Kela, G., Muswalali, K., & Muzwa, K. (2022). Experiences first-year physical education university students faced with online learning during Coronavirus Disease 2019. *Namibia Educational Reform Forum Journal*, 30 (2). <https://tinyurl.com/mryh4cmd>
- Kesuma, G. C. (2023). Moodle e-learning to improve motivation and learning activities at green campus. *Journal of Education Technology*, 7(1), 12–24.  
<https://ejournal.undiksha.ac.id/index.php/JET/article/view/54125>
- Koi-Akrofi, G. Y., Owusu-Oware, E., & Tanye, H. (2020). Challenges of distance, blended, and online learning: A literature-based approach. *International Journal on Integrating Technology in Education*, 9(4), 17-39.  
<https://www.academia.edu/download/65359739/9420ijite03.pdf>
- Li, J., & Xue, E. (2023). Dynamic interaction between student learning behaviour and learning environment: Meta-analysis of student engagement and its influencing factors. *Behavioral Sciences*, 13(9). <https://doi.org/10.3390/bs13010059>
- Liman, K., A. (2021). The influence of online Col presences on learner satisfaction in higher education. *Asian Journal of Distance Education*, 16(1), 230-246.  
<https://doi.org/10.5281/zenodo.5021228>
- Lincoln, Y. S, & Guba, E. (2000). Paradigmatic Controversies, Contradictions, and Emerging Confluences. In: Denzin, N.K. and Lincoln, Y.S., Eds., *Handbook of Qualitative Research*, (2nd ed.), (pp. 163–188). Sage Publications Ltd., Thousand Oaks.
- Mapudzi, H., & Chikandiwa, C. (2022). Revisiting the shocks and aftershocks of the COVID-19 pandemic on higher education in Africa. *Teaching and Learning with Digital Technologies in Higher Education Institutions in Africa: Case Studies from a Pandemic Context*, 185. <https://doi.org/10.4324/9781003264026>
- Martin, F., Wang, C., & Sadaf, A. (2020). Student perceptions of helpfulness of facilitation strategies that enhance instructor presence, connectedness, engagement and learning in online courses. *Internet and Higher Education*, 46,  
<https://doi.org/10.1016/j.iheduc.2018.01.003>
- Meech, S., & Koehler, A. A. (2023). Instructor leadership and the Community of Inquiry Framework: Applying leadership theory to higher education online learning. *International Review of Research in Open and Distributed Learning*, 24(2), 118-137.  
<https://doi.org/10.19173/irrodl.v24i2.6953>

- Mutezo, A. T., & Maré, S. (2023). Teaching and cognitive presences: The mediating effect of social presence in a developing world context. *Cogent Education*, 1-15. <https://doi.org/10.1080/2331186X.2023.2171176>
- Mutoharoh, M., & Ambarwulan, D. (2021). Evaluation of the use of the Moodle Platform for Fundamental Physics Lectures at University. *Jurnal Penelitian & Pengembangan Pendidikan Fisika*, 7(2), 69-176. <https://pdfs.semanticscholar.org/3bef/2e39619440b660bbf51bd90b6d8cbda4332b.pdf>
- Myers, M.D. (2008). *Qualitative research in business & management* (3<sup>rd</sup> ed.). Sage.
- Nafidi, Y. & El-Batri, B. (2023). Enhancing Online Learning: A Comparative Analysis of Moodle and Google Classroom in Rabat's Faculty of Education Sciences. *The International Journal of Technology, Innovation, and Education*, 1(2), 30-50. <https://ijtie.com/v102/n57>
- Namibia University of Science and Technology. (2021). *Namibia University of Science and Technology: Strategic Plan 2021-2025*. <https://www.nust.na/sites/default/files/docs-forms/NUST Strategic Plan 2021-2025 FINAL 010921.pdf>
- Ndlovu, M., & Reddy, M. M. (2023). The use of Moodle by higher education institutions as an e-learning tool during COVID-19. *African Journal of Development Studies*, 13(Special Issue No. 2), 93–114. <https://doi.org/10.31920/2634-3649/2023/sin2a5>
- Nguyen, H. T. T. (2023). LMS-based integrated online assessment implementation at the university to foster learning motivation and academic performance. *Interactive Learning Environments*, 1-14. <https://doi.org/10.1080/10494820.2023.2187422>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), <https://doi.org/10.1177/1609406917733847>
- Olugbade, D., Ojo, O. A., & Tolorunleke, A. E. (2023). Challenges and limitations of Moodle LMS in handling large-scale projects: West-African Universities lecturers' perspective. *Journal of Educational Technology and Instruction*, 2(2), 47-66. <https://doi.org/10.70290/jeti.v2i2.71>
- Onchwari, G., & Keengwe, J. (2017). *Handbook of research on pedagogies and cultural considerations for young English Language Learners*. IGI Global. [Toward-a-Participatory-View-of-Early-Literacies-in-Second-Language-Contexts-Concepts-Methodologies-Tools-and-Applications.pdf \(researchgate.net\)](#)
- Osorio, C., Fuster, N., Chen, W., Men, Y., & Juan, A. A. (2024). Enhancing Accessibility to Analytics Courses in Higher Education through AI, Simulation, and e-Collaborative Tools. *Information*, 15(8), 430. <https://doi.org/10.3390/info15080430>
- Paolini, A. (2015). Enhancing teaching effectiveness and student learning outcomes. *Journal of Effective Teaching*, 15(1), 20–33. <https://files.eric.ed.gov/fulltext/EJ1060429.pdf>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. (3rd ed.) Sage Publications, Inc.

- Pedro, E., Mendes, L., & Lourenço, L. (2018). Perceived service quality and students' satisfaction in higher education: the influence of teaching methods. *International Journal for Quality Research*, 12(1), 165. <http://ijqr.net/journal/v12-n1/10.pdf>
- Prasetya, R. E. (2023). The constructivism English online teaching Moodle-based integration in higher education context. *International Journal of English Linguistics, Literature, and Education (IJELLE)*, 5(1), 28-42. [https://www.researchgate.net/publication/372342574\\_The\\_Constructivism\\_English\\_Online\\_Teaching\\_Moodle- Based\\_Integration\\_in\\_Higher\\_Education\\_Context](https://www.researchgate.net/publication/372342574_The_Constructivism_English_Online_Teaching_Moodle-Based_Integration_in_Higher_Education_Context)
- Prasetya, R. E., & Raharjo, D. H. (2023). Exploration of Demotivating Factors in English Language Learning Moodle-Based: Comparison Online and Hybrid Learning. *English Education: Jurnal Tadris Bahasa Inggris*, 16(1), 175-196. <https://doi.org/10.24042/ee-itbi.v16i1.15872>
- Rahman, P. (2023). An investigation into ELF students' experiences toward the use of moodle and its implementation challenges at institute Parahikma Indonesia. *Eternal English, Teaching, Learning, and Research Journal*, 9(1). <https://journal3.uin-alauddin.ac.id/index.php/Eternal/article/view/33589>
- Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, 144, 103701. <https://doi.org/10.1016/j.compedu.2019.103701>
- Rezaei, M., Osam, U. V., & Manzari, E. (2015). Post-graduate students' perception of using Moodle in a teacher education course: a focus on pros, cons and the role of technological pedagogical content knowledge (TPACK). *Selt Sherif ELT Conference*. Sheriff University of Technology. <https://www.researchgate.net/publication/322075585>
- Richardson, J. C., Arbaugh, J. B., Cleveland-Innes, M., Ice, P., Swan, K. P., & Garrison, D. R. (2012). Using the Community of Inquiry framework to inform effective instructional design. In L. Moller & J. Huett (Eds.), *The next generation of distance education* (pp. 97–125). Springer. [https://doi.org/10.1007/978-1-4614-1785-9\\_7](https://doi.org/10.1007/978-1-4614-1785-9_7)
- Saleem, N., Al-Suqri, M., & Ahmed, S. (2016). Acceptance of Moodle as a teaching/learning tool by the faculty of the department of information studies at Sultan Qaboos University, Oman based on UTAUT. *International Journal of Knowledge Content Development and Technology*, p. 6. 5–27. <http://ijkcdt.net/xml/08901/08901.pdf>
- Salmon, G. (2019). *The evolution of e-tivities: The key to active online learning*. Routledge.
- Sarfo, F. K., & Yidana, I. (2016). University lecturers experience in the design and use of Moodle and blended learning environments. *The Online Journal of New Horizons in Education*, 6(2), 143-154. <https://tojqih.net/journals/tojned/articles/v06i02/v06i02-18.pdf>
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th ed.) Pearson Education Limited.

- Seage, S. J., & Türegün, M. (2020). The Effects of Blended Learning on STEM Achievement of Elementary School Students. *International Journal of Research in Education and Science*, 6(1), 133-140. <https://files.eric.ed.gov/fulltext/EJ1231349.pdf>
- Seis, Z. (2023). Turkish EFL learners' perspectives regarding the use of online lab. *Novitas-ROYAL (Research on Youth and Language)*, 17(1), 30–46. <https://files.eric.ed.gov/fulltext/EJ1389078.pdf>
- Shea, P., Hayes, S., & Vickers, J. (2010). Online instructional effort measured through the lens of teaching presence in the community of inquiry framework: A re-examination of measures and approach. *The International Review of Research in Open and Distributed Learning*, 11(3), 127–154. <https://doi.org/10.19173/irrodl.v11i3.915>
- Shea, P., Richardson, J. C., & Swan, K. (2022). Building bridges to advance the Community of Inquiry framework for online learning. *Educational Psychologist*, 57(3), 148–161. <https://doi.org/10.1080/00461520.2022.2089989>
- Steffen, E. (2016). Ethical considerations in qualitative research. In E. Lyons & A. Coyle (Eds.), *Analysing qualitative data in psychology* (2nd ed., pp. 31–44). Sage. [https://www.researchgate.net/publication/301293109\\_Ethical\\_considerations\\_in\\_qualitative\\_research](https://www.researchgate.net/publication/301293109_Ethical_considerations_in_qualitative_research)
- Suparjan, S., Ismiyani, N., Mariyadi, M., Shintasari, D., & Kresnadi, H. (2023). Investigating students' perspectives on the use of e-learning Moodle. *Jurnal Pendidikan*, 15(1). <https://doi.org/10.35445/alishlah.v15i1.2889>
- Swan, K., & Shih, L. F. (2005). On the nature and development of social presence in online course discussions. *Journal of Asynchronous Learning Networks*, 9(3), 115-136. [https://www.academia.edu/download/1899948/JALN\\_socpres2\\_v9n3\\_swan.pdf](https://www.academia.edu/download/1899948/JALN_socpres2_v9n3_swan.pdf)
- Tamada, M. M., Giusti, R., & de Magalhães Netto, J. F. (2021). Predicting student performance based on logs in Moodle LMS. In *2021 IEEE Frontiers in Education Conference (FIE)* (pp. 1–8). IEEE. <https://doi.org/10.1109/FIE49875.2021.9637274>
- Thomas, L., Herbert, J. & Teras, M. (2014). A sense of belonging to enhance participation, success and retention in online programs. *The International Journal of the First Year in Higher Education*, 5 (2), 69-80. <https://ro.uow.edu.au/asdpapers/475/>
- Uzorka, A., Namara, S., & Olaniyan, A. O. (2023). Modern technology adoption and professional development of lecturers. *Education and Information Technologies*, 1-27. <https://doi.org/10.1007/s10639-023-11790-w>
- Vaughan, N. (2007). Perspectives on blended learning in higher education. *International Journal on E-Learning*, 6(1), 81–94. <https://www.learntechlib.org/primary/p/6310/>.
- Wichadee, S. (2015). Factors related to faculty members' attitude and the adoption of a learning management system. *The Turkish Online Journal of Educational Technology*, 14(4), 53–6. <https://files.eric.ed.gov/fulltext/EJ1077631.pdf>

- Widodo, J. P., & Slamet, J. (2021). Lecturers' Perspectives Through E-learning by Using Moodle for Post-Graduate Students at STKIP PGRI Sidoarjo. *Advances in Social Science, Education and Humanities Research*. <https://doi.org/10.2991/assehr.k.211212.031>
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.) Sage.
- Yüzlü, M. Y. (2023). Learner agency transforming into autonomy in discussion skills course via Moodle. *Novitas-ROYAL (Research on Youth and Language)*, 17(1), 47–61.
- Zorba, M. G. (2020). Personal and professional readiness of in-service teachers of English for culturally responsive teaching. *Eurasian Journal of Educational Research*, pp. 88, 41–66. <https://doi.org/10.14689/ejer.2020.88.2>
- Zorba, M. G. (2020). Personal and professional readiness of in-service teachers of English for culturally responsive teaching. *Eurasian Journal of Educational Research*, 88, 41–66. <https://doi.org/10.14689/ejer.2020.88.2>
- Zorba, M. G. (2022). Exploring novice English teachers' professional development: Insights from the Turkish context. *International Journal of Curriculum and Instruction*, 15(1), 446–466. <https://files.eric.ed.gov/fulltext/EJ1383088.pdf>
- Zwane, S., & Mudau, P. (2023). Student Teachers' Experiences of Open Distance e-Learning Support in a Posthuman Era: A Learner Engagement Perspective. *Journal of Curriculum Studies Research*, 5(1), 13-33. <https://doi.org/10.46303/jcsr.2023.3>