THE QUALITY OF ONLINE TEACHING AND LEARNING METHODS AS OFFERED BY LECTURERS DURING CORONAVIRUS-DISEASE-2019 AT THE UNIVERSITY OF LIMPOPO, SOUTH AFRICA

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Abstract

This study aims to assess the quality of online teaching and learning (T & L) methods offered by lecturers during Coronavirus Disease-2019 at the University of Limpopo (UL). A qualitative research approach and exploratory research design were employed. Non-probability purposive sampling was used to select participants. Data was collected using semi-structured Key Informant Interviews (KIIs), and inductive Thematic Content Analysis (TCA) was deployed to analyse the qualitative data. The literature review highlighted the challenges most rural or historically disadvantaged universities in South Africa faced in maintaining educational standards and equity in online learning. Moreover, the findings revealed significant issues, including compromised teaching quality, limited accessibility, inequality, and concerns about academic integrity. Despite these challenges, the university's initiatives, such as training, resource provision, plagiarism detection tools, and proctoring tools, helped mitigate some of these negative impacts. The study recommends continuous investment in digital infrastructure, regular updates to online platforms, and enhanced collaboration among faculties to support effective and equitable online T & L. These measures are crucial for sustaining high-quality education in the current digital environment.

Keywords: Online Teaching and Learning, Quality, University of Limpopo, Coronavirus Disease-2019, Lecturers.

1. Introduction

According to Pedro and Kumar's (2020) estimation, online teaching and learning (T & L) has significantly increased in the past two decades. On that note, Moonasamy and Naidoo (2021) state that in the past two years of Coronavirus-Disease-2019 (COVID-19), online T & L have proven to be an alternative approach for sustaining academic processes. However, several concerns about maintaining high-quality online instruction have surfaced. These concerns include course redesign, the creation of instructional materials and technologies, as well as the timely and proper evaluation of learning outcomes (Huang, Liu, Ahmed, Yang, & Wang, 2020). Similarly, studies conducted by Thomas and Rogers (2020) and Kulikowski, Przytuła, and Sułkowski (2021) argue that online T & L approach does not offer quality education compared to the traditional face-to-face (F2F) T & L method.

However, other studies indicate that the online T & L approach amid COVID-19 had a positive impact on offering quality online education, and students have shown tremendous achievements (Babu, Suresh, & Sridevi, 2018; Lapitan, Tiangco, Sumalinog, Sabarillo, & Diaz, 2020). Moreover, Makhoba (2023) contends that the online T & L approach has made it possible for students and lecturers in rural institutions in South Africa to access and offer good quality education and has opened doors for unemployed and employed workers who were previously unable to attend contact classes, to pursue further education.

Saleem, AlNasrallah, Malik, and Rehman, (2022) suggest that to assess the quality of the online T & L approach, researchers need to understand what online learning is and the quality of online T & L. Online T & L approach is defined as a T & L mode that involves disseminating

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Rivoningo Nyiko Msisinyane[1] Prof Witness Maluleke[2] Karabo Malete[3]

education using internet technologies in a synchronous and asynchronous environment (Dong, Cao, & Li, 2020). Quality online T & L refers to the provision of a robust online learning system that includes quality course design, online technical support services (such as electronic devices), and timely feedback (van der Walt, & Nkoyi, 2022). Arsenijević, Belousova, Tushnova, Grosseck, and Zhivkov (2022) note that experience has shown that effective online teaching requires a pedagogical approach that fosters an engaging and meaningful learning experience, empowering students to take an active role rather than remaining passive. Moreover, van der Walt and Nkoyi (2022) indicate that the higher the overall quality of online learning, the more satisfied students are. Furthermore, increased student satisfaction leads to greater loyalty towards Higher Education Institutions (HEIs) (van der Walt, & Nkoyi, 2022). The implementation of online learning necessitates that both lecturers and students possess technological skills to create high-quality, effective content and sustain meaningful social interactions (Andel, de Vreede, Spector, Padmanabhan, Singh, & De Vreede, 2020). In addition to leveraging technology to uphold quality in online education, there are other elements that are essential (Laksana, 2021). These elements include the availability of suitable facilities, robust infrastructure, ensuring access and equity, maintaining integrity and security, providing training and development, and offering necessary resources (Laksana, 2021).

Despite the transition of the University of Limpopo (UL) into online T & L, little attention has been given to the quality of online T & L methods employed by the lecturers and the institution. Therefore, the current study aims to assess the quality of online T & L methods offered by lecturers during COVID-19 at UL in South Africa. Significant factors such as standard and quality assurance, accessibility and equity, maintaining integrity and security, technological tools, provision of resources (electronic devices), and training and development will be assessed based on lecturers' points of view. This study's aim and motivation align with the United Nations' (2015) Sustainable Development Goal (SDG) 4, which seeks to "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*". This study serves this goal by providing recommendations to enhance quality online teaching and learning. The next sections of this study are as follows: Literature Review, Research Methodology, Study Findings, Themes Identification and Discussions, Recommendations, and Conclusion.

2. Literature Review

This section provides the consulted literature on the quality of online T & L approach offered by lecturers during COVID-19. Toquero (2020) contends that at the centre of the shift from contact to online learning, the focus should be on the quality of education that students received during the pandemic. However, Toquero (2020) provides that the manipulation of the system and technical issues such as poor connectivity, power outages and broadband affected the quality of online T & L approach. Laksana (2021) opines that students from rural-based universities, who face low internet access and frequent electricity outages, generally experience a lower quality of online learning compared to other students. Therefore, effective resources are essential to address these challenges (Laksana, 2021). Bekker and Carrim's (2021) study indicates that measures related to the distribution of electronic devices and ensuring stable internet were made available to South African institutions for the continuity of education.

Other elements identified include the manipulation of the system in the online T & L approach being compromised (Toquero, 2020). This view is endorsed by Mashilo and Selelo (2021), who state that the quality of the content in academic assessments has been weakened. Furthermore, Azorín (2020), through observing Spanish academic assessment and curriculum during COVID-19, indicate that the shift to online learning threatened the quality of online education offered by educators. These challenges were expected, as Mashilo and Selelo (2021) surmise that plagiarism in academic assessments is anticipated to rise in this epoch of online education. To prove it did, Masteki, Maluleke and Barkhuizen (2021) indicate that one of the challenges that hampered the quality of online T & L approach in the Department of Criminology and Criminal Justice at UL was plagiarism, which became a prevalent academic unethical issue. However, Mashilo and Selelo (2021)

acknowledge that the Turnitin tool assisted lecturers in detecting similarities index, which subsequently reduced plagiarism.

One of the tools that are predominantly used by institutions to ensure good quality of education is a proctoring tool known as the online invigilating tool. In the study conducted by Patael, Shamir, Soffer, Livne, Fogel-Grinvald and Kishon-Rabin (2022), it has been reported that using a remote proctoring tool had been useful, especially for institutions that impart remotely using online learning platforms, to assess students in a controlled physical proctored area. However, Patael et al. (2022) show that during un-proctored online examinations, dishonesty was easier and more frequent than when examinations were conducted in proctored environments. Jamieson (2020) contends that even in proctored online assessments, guaranteeing the integrity of examinations has been a challenge.

On a positive note, Zhang, Petersen, Liut, Simion, and Alaca (2021) state that the adoption of proctor tools has improved the quality of online T & L approach, particularly regarding the validity and reliability of the exams. Moreover, Gamede, Ajani, and Afolabi (2022) acknowledge the importance of learning management systems (LMS) in assisting lecturers to effectively facilitate and manage student interaction online in South African HEIs. At UL, Blackboard is the LMS that has been extensively utilised since the outbreak of COVID-19 due to its flexibility in supporting online T & L approach from anywhere, given that one has a device connected to the internet (Odeku, 2021).

One vital point regarding equality and accessibility in the online T & L approach was shared by Bakker and Wagner (2020), who assert that inequality and the digital divide have increased since the transition to online learning because some students in HDIs do not have the resources and opportunities to engage in online education. Dzinisa and Dlamini (2022) also showcase that inequality and accessibility of resources in the online T & L approach have been prevalent among students in HDIs in South Africa. In contrast, Dayal (2023) notes that certain universities had better access to electronic devices, placing them at the highest epitome in delivering good quality online T & L methods.

Basilaia and Kvavadze (2020) recommend that institutions must invest in an advanced LMS that meets current needs and provide lecturers and students with training on how to utilise the systems for skills enhancement. Pedro and Kumar (2020) also reiterate the need for professional development of lecturers on a variety of subjects related to online instruction. Nakweya (2021) admits that the training of lecturers was one of the factors that contributed to a good quality of online education and professional development for lecturers.

However, Ramoroka (2021) points out that some lecturers at UL did not receive adequate training, which was evident in their delivery of online T & L approach, as they were not technologically savvy or computer competent. In contrast, Odeku (2021) provides that UL lecturers received proper training and workshops on utilising LMS, particularly the part of Blackboard called Blackboard Collaborate to empower the University to provide effective lessons and deliver contemporary competent-based pedagogy to all students. Makhoba (2023) indicates that the Department of Higher Education and Training (DHET), together with universities, launched several initiatives, including the University Capacity Development Programme (UCDP), aimed at training and supporting lecturers in HDIs across South Africa to ensure superior educational standard. To prevent quality failures and ensure a productive online T & L approach, Nokweya (2021) suggests the need for institutional support for online teaching within the quality assurance framework strategy.

3. Research Methodology
3.1 Research Approach
In this study, a qualitative research approach was employed. Denzin and Lincoln (2005) define qualitative research as a comprehensive method that embraces an interpretative, naturalistic perspective toward the subject matter. Moreover, qualitative research aims to immerse the researchers into the phenomenon by ensuring an in-depth comprehension through observation or interaction with selected participants (Denzin & Lincoln, 2005).

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Rivoningo Nyiko Msisinyane[1] Prof Witness Maluleke[2] Karabo Malete[3]

3.2 Research Design

This study employed an exploratory research design due to the limited literature available regarding the quality of online T & L methods as offered by lecturers during COVID-19 at UL in South Africa. In support, Grinnell, Unrau, and Williams (2009) state that when there is little existing knowledge about a phenomenon, exploratory research should be considered. Therefore, the aim of the study is to assess the quality of online T & L employed by lecturers during COVID-19 pandemic.

3.3 Sampling Method

Non-probability purposive sampling was employed in this study. This sampling method enables researchers to select suitable participants who can provide detailed insights into their experiences with the online T & L approach (Msisinyane & Maluleke, 2024). Strydom and Delport (2011) indicate that when a researcher employs purposive sampling, they intentionally select a sample based on judgment or because the participants fall under a certain category of the researcher's interests. Purposive sampling was chosen by the researchers in this study for several reasons, including its practicality and the researcher's ability to select participants who are pertinent to the research study.

The targeted sample for this study consisted of staff members, specifically lecturers. Lecturers were selected for several reasons. Firstly, they have direct first-hand experience in delivering online teaching during the COVID-19 pandemic. Secondly, they are involved in designing the content and methods used in online T & L approach. Therefore, they can offer valuable insights into the quality of these methods. Out of the thirteen (13) lecturers, only ten (10) lecturers formed part of this study, excluding the contracted Research Assistants (RAs).

3.4 Data Collection

Simplelearn (2021) describes data collection as a technique involving selecting, assessing, and analysing precise information from various sources or participants to address research problems, evaluate results, and estimate patterns. To collect data in this study, the researchers employed semi-structured Key Informant Interviews (KIIs). The semi-structured interview schedule, created using Google Forms, was emailed to the ten (10) lecturers who provided their email addresses indicating their willingness to participate in the interview, in order for the researchers to gather qualitative data. Only nine (09) participants out of ten completed the semi-structured KII interview questions.

3.5 Data Analysis

Inductive Thematic Content Analysis (TCA) was employed to analyse the collected qualitative data. This data analysis tool is defined as a process of distinguishing, assembling, and discerning themes from a data set (Braun & Clarke, 2006). Therefore, in this study, the six (06) phases of thematic analysis proposed by Braun and Clarke (2006) were applied to analyse data: familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.

3.6 Ethical Considerations

Ethical considerations are viewed as a collection of guidelines that direct the planning and execution of the research (Bhandari, 2024). Ethical clearance to conduct this study was sought to ensure that the study adhered to ethical considerations from the following ethical committees: Departmental Research Ethics Committee (DREC), School of Social Sciences Research Committee (ScREC), Faculty of Higher Degrees Committee (FHDC), and Turfloop Research Ethics Committee (TREC).

4. Study results, themes identification, and discussions

This section focuses on analysing the findings from lecturers regarding the quality of online T & L methods during COVID-19 at UL. To achieve this, lecturers were asked the following two questions:

- *What does the quality of online Teaching and learning methods entail?*
- *What measures were taken by the university to ensure the good quality of online Teaching and Learning?*

When lecturers were asked this question **"*What does the quality of online Teaching and Learning methods entail?*"**. The following key themes emerged:

4.1 Theme 1: Standards and Quality Assurance

Lecturers emphasised the importance of maintaining an acceptable standard of teaching and assessments in an online environment. Concern over compromised quality and acceptable standards of T & L are evident from comments such as:

> *"It entails the acceptable standard of teaching and assessments offered online"* and *"No quality at all. Online T & L compromise the quality of education."*

These responses indicate a perceived drop in educational standards. Mashilo and Selelo (2021) affirm this assertion by stating that the quality of content in academic assessments has deteriorated. Similarly, Azorin (2020) suggests that the shift to online learning has compromised the quality of education provided by educators. Therefore, this is troubling given the critical role that Criminology and Criminal Justice education plays in shaping future professionals in the field. The challenge lies in establishing robust quality assurance mechanisms to ensure that the shift to online platforms does not undermine educational outcomes. In this context, Nokweya (2021) additionally suggests the need for institutional support for online teaching within the quality assurance framework strategy.

4.2 Theme 2: Access and Equity

Access and equity to online T & L emerged as a significant theme, with lecturers stressing the importance of providing equal opportunities and accessibility in online T & L for students and lecturers/staff. One lecturer highlighted:

> *"Allowing students and staff of the Department of Criminology and Criminal Justice to have equal opportunities of accessing online T & L, as well as ensuring that the existing T & L methods are designed and moderated by experts of the offered contents."*

Ensuring that T & L methods are designed and moderated by content experts is crucial for inclusivity and effectiveness. This aspect is vital in preventing disparities in educational access and ensuring that all students, regardless of their background or resources, have the opportunity to succeed in an online learning environment. However, Bakker and Wagner (2020) argue that inequality and the digital divide have increased since the transition to online learning because some students in HDIs do not have the resources and equal opportunities to engage in online education. In contrast, Dayal (2023) notes that certain universities had better access to electronic devices, positioning them at the forefront of delivering high-quality online T & L methods.

4.3 Theme 3: Integrity and Security

Concerns over the integrity of online assessments were prominent, with lecturers pointing out the ease with which students could manipulate the system due to insufficient proctoring tools. This issue is critical as it directly impacts the credibility of the educational process and the validity of assessment outcomes. One lecturer stated:

> *"Online T & L approach jeopardise the good quality of education because students easily manipulate the system during tests and exams due to insufficient proctoring tools that can completely monitor students when writing summative assessments."*

This response is supported by Patael et al. (2022), who state that the absence of proper proctored tools made academic dishonesty easier and more frequent compared to proctored environments. Addressing

Rivoningo Nyiko Msisinyane[1] Prof Witness Maluleke[2] Karabo Malete[3]

these concerns requires the implementation of more secure and effective proctoring solutions to uphold academic integrity. Thus, Patael et al. (2022) acknowledge that using a remote proctoring tool has been useful, especially for institutions that impart remotely using online learning platforms, to assess students in a controlled physical proctored area. On this question: *"What measures were taken by the University to ensure the good quality of online Teaching and Learning?'.* The following key themes below emerged:

4.4 Theme 4: Implementation of Technological Tools

A significant step was the implementation of technological tools to uphold academic integrity and assessment quality. One lecturer noted:

> *"A proctoring tool was implemented to monitor the student's examinations, and some of the assessments were submitted through the Turnitin platform to regulate the plagiarism and similarity index."*

The use of these tools helped to monitor exams and control plagiarism, thus maintaining the standards of academic honesty and integrity. Therefore, Zhang et al. (2021) highlight that the adoption of proctor tools has improved the quality of online T & L approach, particularly regarding the validity and reliability of the exams. Furthermore, Mashilo and Selelo (2021) recognise that Turnitin helps maintain academic integrity by detecting plagiarism and similarities, thereby preventing academic dishonesty. The implementation of these technological tools has been useful in preserving good quality of online T & L approach.

4.5 Theme 5: Provision of Resources

According to lecturers' responses in this study, the University provided essential resources to support online learning. Two of the lecturers' responses are captured below:

> *"Provision of computers and data to students. Yes, the university provided the laptops and data bundles".*

By ensuring students had access to the necessary technology and internet connectivity, the university addressed equity issues, enabling all students to participate fully in the online T & L approach. Bekker and Carrim (2021) showcase that measures related to the distribution of electronic devices and ensuring stable internet were made available to South African institutions for the continuity of education. The responses show that UL did everything in its power to ensure a quality online T & L approach.

4.6 Theme 6: Training and Development

Regular training sessions were provided to both lecturers and students to enhance the quality of online T & L approach. In reference, lecturers mentioned:

> *"Offering of the online T & L courses by the ICT of the University of Limpopo enhances the existing quality of offerings and the students and staff members attached to the Department of Criminology and Criminal Justice render quality contents thereof"* and *"Training proffered to both staff and students."* Other lecturers also stated that the University *"provided training workshops, Constant training, Training in going fully online".*

This focus on the provision of training leads to professional development for lecturers, thereby improving the quality of online T & L approach. Ramoroka's (2021) study differs from the responses provided by pointing out that some lecturers at UL did not receive adequate training, which was evident in their delivery of online T & L approach, as they were not technologically savvy or computer-competent. However, Odeku (2021) provides that UL lecturers received proper training and workshops on utilising LMS, particularly the part of Blackboard called Blackboard Collaborate to empower the University to provide effective lessons and deliver contemporary competent-based pedagogy to all students.

4.7 Discussions

The findings of this study regarding the quality of the online T & L approach during COVID-19 at UL reveal significant challenges and the efforts done to ensure educational standards. For instance, theme one stresses concern over compromisation of the quality, with lecturers pointing out the difficulties in sustaining acceptable teaching and assessment standards in an online environment. It was also stipulated that a robust quality assurance framework is essential to address these challenges and uphold quality education.

Access and equity emerged as another critical theme, highlighting the importance of providing equal opportunities and accessibility in online T & L for students and lecturers. However, the shift to online learning has exacerbated the digital divide and inequality in resources. That said, lecturers in this study emphasised the need for inclusivity and accessibility by highlighting that T & L methods must be well-designed and moderated. Integrity and security in online assessments were also significant concerns, with lecturers noting the ease with which students could manipulate the system due to insufficient resources such as proctoring tools. Additionally, plagiarism was highlighted as a major concern. Lecturers discussed the measures taken by the university to ensure the quality of online T & L approach. Themes emerged indicating the need to implement secure and effective proctoring tools, as well as plagiarism detection tools like Turnitin, to uphold academic honesty and integrity. Moreover, the provision of essential resources, such as computers and data bundles, alongside continuous training and development for both lecturers and students, were measures taken by UL to support and enhance the quality of online T & L approach. These efforts demonstrate a comprehensive approach to maintaining educational quality, ensuring accessibility, and preserving the integrity of the online learning environment.

5. Recommendations

From the study results, themes identifications, and discussions in section 4. The researchers recommended the following:

It is recommended that the University should employ strategies to maintain engagement and ensure good quality of content and assessments delivered online. The use of online learning tools, such as Turnitin and proctoring tools, that detect plagiarism, verify student profiles, and identify academic misconduct should be monitored and regularly evaluated. Awareness campaigns should be implemented to promote academic integrity and educate students about the consequences of committing academic misconduct and the importance of ethical behaviour in online assessments. To bridge the digital divide and ensure equal access to education, the government and university are urged to continue with providing underprivileged students with essential resources, including laptops and internet connectivity through data provisions. This initiative will help address disparities in educational access and create a more inclusive online learning environment. Equipping students from low-income backgrounds with technological devices and internet access will empower them to engage fully in online learning, thereby narrowing the disparity in academic achievement and creating a more equitable educational space. The university is urged to improve the quality of online education by investing in technology infrastructure to minimise technical issues, regularly updating and reviewing tools for maintaining assessment integrity and collaborating with educational technology experts specialising in academic integrity tools. Collaboration among faculties and universities is recommended, as it can foster a supportive environment for addressing issues and implementing effective online teaching methods.

6. Conclusion

This study assessed the quality of online T & L offered by lecturers during the COVID-19 pandemic at UL. A qualitative research approach and an exploratory research design were employed. Non-probability purposive sampling was used to select participants who were eligible for this study. Data was collected using semi-structured Key Informant Interviews (KIIs), and inductive thematic content analysis was deployed to analyse the qualitative data. The literature review provided a

THE QUALITY OF ONLINE TEACHING AND LEARNING METHODS AS OFFERED BY LECTURERS DURING CORONAVIRUS-DISEASE-2019 AT THE UNIVERSITY OF LIMPOPO, SOUTH AFRICA

Rivoningo Nyiko Msisinyane[1] Prof Witness Maluleke[2] Karabo Malete[3]

foundational understanding, drawing on previous studies that highlighted the challenges and the importance of maintaining educational standards and equity in online environments. The findings revealed that the shift to online T & L amid COVID-19 presented significant challenges, including struggles to uphold teaching quality, issues of accessibility, and the integrity of assessments.

Despite these obstacles, the university's proactive measures, such as providing digital resources, training staff and students and implementing proctor and plagiarism detection tools, demonstrated its commitment to preserving educational standards. The study recommends ongoing investment in technology, and regular updates to online learning platforms, and suggests collaboration among UL academic faculties as well as with other universities to enhance the quality of online education.

Conflict of interest: The authors confirm that no conflict of interest exists in this study that would compromise the integrity of the study and its findings.

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THE QUALITY OF ONLINE TEACHING AND LEARNING METHODS AS OFFERED BY LECTURERS DURING CORONAVIRUS-DISEASE-2019 AT THE UNIVERSITY OF LIMPOPO, SOUTH AFRICA

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