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Service quality of the online classroom experience in higher education: The influence of lecturer-controlled variables

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DECLARATION

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ABSTRACT

This study attempted to understand what undergraduate students expect and perceive in terms of online lecture service quality, explore the influence of interventions related to lecturer-controlled elements of the classroom experience (i.e. interaction between students and staff, physical evidence and lecture production process) on students' initial perceptions of online lecture service quality, and propose a model/tool to measure online lecture service quality at the National University of Lesotho (NUL).

In adopting an action research case study design and a mixed methods approach, the study addressed the bias in the marketing literature towards purely quantitative investigation of service quality in education. Using a sample of 188 students and 14 staff from NUL, data gathered via multiple methods and in several stages facilitated deep exploration of the quality of the online classroom encounter at NUL. The study emphasised qualitative exploration by soliciting opinions of teaching staff via interviews on interventions they implemented and challenges they faced, and by using focus group discussions to collect data from various categories of students about online lecture service quality. Thematic analysis was used for qualitative data analysis. Based on input solicited during the focus groups and interviews, a modified three-dimension SERVQUAL instrument was proposed as a suitable measure of the online classroom experience at NUL.

Findings suggest that three main role players in the online teaching and learning activity are lecturers, students and technological infrastructure. Students hold that their learning experiences are impacted as they interact with lecturers and co-act in the lecture production process, while technological infrastructure is vital for the online teaching and learning process. As such, an instrument designed to assess contact lecture service quality cannot be readily used to assess online lecture service quality.

Keywords: Action research, higher education, lecturer-controlled variables, lecture service quality, online classroom experience, SERVQUAL

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

AAU	:	Association of African Universities
BCom	:	Bachelor of Commerce
BS-QUAL	:	Business School Quality
CHE	:	Council on Higher Education
CTL	:	Centre for Teaching and Learning
DBA	:	Department of Business Administration
DPO	:	Development Planning Office
E-commerce	:	Electronic commerce
E-learning	:	Electronic learning
HE	:	Higher Education
HedPERF	:	Higher Education Performance
HEDQUAL	:	Higher Education Quality
HEI	:	Higher Education Institution
HEISQUAL	:	Higher Education Institution Service Quality
HESQUAL	:	Higher Education Service Quality
ICT	:	Information and Communication Technology
MBA	:	Master of Business Administration
NUL	:	National University of Lesotho
PHEI	:	Private Higher Education Institution
RO	:	Research objective
RQ	:	Research question
SADC	:	Southern African Development Community
SERVPERF	:	Service performance

SERVQUAL	:	Service quality
SET	:	Student Evaluation of Teaching
UK	:	United Kingdom
UNIVQUAL	:	University Quality
USA	:	United States of America

CHAPTER ONE: INTRODUCTION AND OVERVIEW

1.1 Introduction

This chapter provides background to the study, in which service quality measurement in higher education (HE) is scrutinised. Specifically, the role of lecturer-controlled variables in influencing undergraduate student perceptions of online lecture service quality at the National University of Lesotho (NUL), within the Lesotho HE context, forms the focus of the study. Owing to how recently fully-fledged online teaching and learning was implemented in Lesotho's HE sector, there exists a gap in both literature on lecture service quality measurement in the online classroom environment in Lesotho, and an appropriate measurement tool for lecture service quality in this setting. This study addresses this gap.

This chapter provides a detailed context for the institution under study (NUL), highlighting the current situation regarding assessment of teaching quality at NUL, and the selected courses under focus in the study. The problem statement is presented, in relation to the literature relevant to the study, particularly the abrupt adoption by NUL (like other HE institutions) of online teaching and learning in the wake of the COVID-19 pandemic. This is followed by research questions proposed by the study, and aligned research objectives. Specifically, the study interrogated the quality of lecture services provided online by the researcher (as an instructor) for the selected courses that he offers. The interest was on the influence of variables that the lecturer controls during the online teaching and learning activity and students' perception of such lecture service. Thus, identification of students' initial perceptions of online lecture service quality at NUL was the objective consistent with the title, with respect to service quality of online classroom experience in HE, as influenced by lecturer-controlled variables. This objective was achieved through Step 3 of the implemented action research process (which is detailed in the methodology chapter) whereby an online survey was conducted among a total of 182 students from the selected courses. Three important areas (the lecturer, teaching and learning activities, and the classroom environment), were analysed in relation to three selected Ps (people, process and physical evidence) of the services marketing mix and three selected dimensions of the SERVQUAL instrument (empathy, responsiveness and tangibles). The selected Ps and SERVQUAL dimensions are all controllable by the lecturer.

The significant role of the study in Lesotho's HE sector, particularly in relation to the newly-introduced online teaching and learning, is outlined. The rationale for undertaking this study flows from its significance in the HE sector in Lesotho. An overview of the methodology employed in the study follows, that is, mixed

methods action research case study. This leads into the delimitations of the study. The final section of this chapter gives the structure of the thesis as a whole, that is, how it is organised in terms of chapters.

1.2 Background to the study

Uncles (2018) considers HE a service industry, while Milojević and Radosavljevic (2019) note how critical service quality is in the market for education in terms of how higher education institutions (HEIs) survive and grow in that market. However, at the time the researcher first embarked upon this study, NUL had only once attempted student evaluation of teaching, through a pilot study in the 2014/2015 academic year (Centre for Teaching and Learning Report, 2016), conducted in a contact-based teaching and learning environment. While this might have been relevant then, NUL subsequently had to abruptly shift to online teaching and learning in the second semester of the 2019/2020 academic year when COVID-19 restrictions were first introduced in the country. Camilleri (2021) notes that, due to the surfacing of COVID-19, HEIs had to suddenly shift to virtual and remote course delivery, which posed challenges to both teachers and students who had to familiarise themselves with e-learning resources in a short space of time. Despite such challenges, NUL has had to embrace online education as a global phenomenon that brings with it such advantages as cost-effectiveness and a rational means to broaden educational opportunities in Sub-Saharan Africa (Trines, 2018). While these and other benefits are reachable by NUL, the challenge is the perception of lecture service quality under this online mode, especially for 'newcomers' like NUL. For instance, Wi-Fi access by students was a great challenge at NUL in the academic year 2020/2021, when only online materials, video lectures and discussion platforms were utilised for teaching and learning; the implications for the quality of teaching and learning cannot be overemphasised. It was therefore imperative to understand students' views on teaching and learning activities under the online mode.

Agarwal, Verma and Malhotra (2021) note limited extension of concepts related to traditional service management as far as online teaching and learning was carried out in developing countries (such as Lesotho) during the COVID-19 pandemic, while Schijns (2021) observes that following their sudden transition from contact teaching to online teaching within a short space of time in response to COVID-19, HEIs were concerned with service quality. The author notes that in the Netherlands, a reputable online HEI analysed their service quality, after which some traditional class-based HEIs which were introducing online learning systems followed suit, basing their systems on those of the online institution. To the best knowledge of the researcher (an instructor in the HE sector in Lesotho), however, there was no similar reputed online HEI in Lesotho for NUL to emulate during the onsite-to-online transition. Du, Li and Wang (2018) note a consistent concern about service quality in the online education field. NUL was not spared such concern.

Thus, the perception of online lecture service quality requires investigation and the study addresses this concern for HE sector in Lesotho by exploring undergraduate students' perceptions of the quality of this mode of teaching and learning at NUL. That is, while service quality might have previously been explored in the context of HE in Lesotho (e.g. Tlali & Mukurunge 2019), none of the existing studies have specifically focused on the service quality of the classroom experience only, in the context of online teaching and learning.

Apart from the identified concern about the service quality of online HE, another outstanding issue has been the question of an appropriate measurement tool. This provided motivation for this study to propose a measurement tool, specific to measuring service quality within the classroom environment, in the context of online learning.

The study employed action research to assess the influence of actions related to selected elements ('Ps') of the services marketing mix – *people*, *physical evidence* and *process* - on the quality of online lecture services offered at NUL, as perceived by students. The ***people*** component encompasses all the staff of the university; however, the study focused on academic staff, who interact with students during online teaching and learning. The ***physical evidence*** in the context of online education relates to technological infrastructure (Anane-Donkor & Dei, 2021) such as learning content management systems, authoring tools and learning management systems. The ***process*** relates to the production, delivery and consumption of online lecture services. These 3Ps formed the focus of the study due to their pertinence in online lecture service production, delivery and consumption, and due to the fact that they are controllable to some extent by the lecturer during teaching and learning activity. The situation at NUL is further explored in the next section.

1.3 Contextualising the study

To date, Lesotho's HE sector boasts 14 HEIs, three of which are universities (Letlatsa, 2018; Tlali & Mukurunge, 2019). While NUL is the only university which gets funding in the form of subvention from the government (NUL Strategic Plan, 2015-2020), every Mosotho student at any of these universities gets a bursary-loan from the government, even though the other two universities are private institutions while NUL is a public university. This means that the three universities compete on equal footing in terms of attracting students, because students have equal chances of securing sponsorship from the government when enrolling at any of the three universities. Lecture service quality can therefore potentially be a decisive factor guiding students' choice of a university amongst these three options. Trines (2018) asserts that, with online education removing geographical boundaries, competition is an even greater factor since HEIs now

compete with other institutions from around the world, for students from around the world. Accordingly, service quality in the online teaching context is crucial.

NUL has been offering onsite programmes (NUL Strategic Plan, 2015-2020) since its establishment in 1945, until the abrupt shift to the online mode during the second semester of the 2019/2020 academic year, in the wake of COVID-19. However, it was only in 2014 that the Development Planning Office (DPO) (through Quality Assurance Specialist) and the Centre for Teaching and Learning (CTL) designed a tool to assess teaching at NUL (DPO and CTL Report, 2016). This tool, Student Evaluation of Teaching (SET), was approved by the University Council on 23 June 2014 (DPO and CTL Report, 2016) and subsequently became effective on 1 July 2014 (Khaola & Thetsane, 2021). SET was designed for contact teaching and learning, as it was the only mode of delivery at NUL at that stage. CTL and DPO piloted this tool in 2016, the results of which were shared in a seminar on 2 October 2017 (DPO and CTL Report, 2017).

While issues of policy surrounding SET at NUL, as well as lack of consistent and systematic monitoring of lecture service quality at NUL, have marred the effectiveness of the tool, the shift to online mode has dictated a need for a new perspective, both in understanding students' perceptions of lecture service quality and designing an appropriate measurement tool relevant to the new online mode adopted by NUL. Khaola and Thetsane (2021) have ascertained the validity of the SET tool at NUL, but on the premise of its original design for contact teaching. This, and other parts of their findings, motivated this study to further explore the teaching dimension at NUL, given the online mode recently implemented. Thus, this study focused on students' perceptions of the service quality of the online classroom experience specifically. As indicated earlier, while service quality has previously been explored in the context of HE in Lesotho, none of the existing studies have focused specifically on the service quality of the classroom experience only, in the context of online teaching and learning. This study assessed students' perceptions of lecture service quality in three selected courses (Strategic Management, Integrated Marketing Communications and Services Marketing) taught by the researcher. The selection was based on the fact that the researcher undertook practitioner research in order to interrogate his teaching and identify weaknesses for improvement, while empowering the learners through the action research phases employed in the study. Through this action research, the researcher inquired into lecture service quality measurement at NUL (inquiry), while attempting to change the culture (action) for the improved consistent and systematic evaluation of lecture services (purpose). That is, the action research about his own practice (in this case, the teaching of the researcher) should benefit him, his academic community (the Department of Business Administration, CTL) and other key stakeholders, including students. The study therefore, proposes a way of measuring lecture service quality under this new way of teaching and learning at NUL; that is, an appropriate

measurement of online lecture service quality. This currently remains a problem, as detailed in the next section.

1.4 Statement of the problem

Like all universities, NUL needs to ensure that it produces much-needed high-quality graduates. However, both the quality of tuition and graduates ('products') at NUL have been raised as a concern in various quarters of the nation, including academia, for quite some time. The media expressed this concern as they commented on a NUL teaching staff strike: "Reducing professionals to waving placards in order for them to be heard and paid what rightly is due to them, can only chase away much-needed qualified personnel and further undermine the quality of tuition and graduates, the latter which has been the subject of public debate in recent months" (Lesotho Times, 2016: 11). This undermines NUL's vision of 'nurturing thought leaders' (NUL Strategic Plan, 2020-2025), which is critical since universities worldwide are expected to produce future leaders in all respects. It also frustrates the Council on Higher Education (CHE) Lesotho's mandate to ensure that the quality of HE in Lesotho meets regional and international standards (CHE Programmes Review Guidelines, 2018).

To acknowledge the challenge of unfavourable perceptions of tuition quality and graduates, in her address to the Congregation meeting on 12 February 2010, the Registrar included the following agenda item: 'Strategies to address negative perception on the image and quality of products from the University' (Congregation meeting call, February 2010). The teaching staff at NUL has also long been acknowledging the concern about the quality of tuition. The Head of Department of Business Administration (DBA), in addressing a Departmental meeting on 7 July 2008, under the agenda-item 'Quality Control Mechanisms', had this to say: "The Department needs to envisage quality control measures in order to maintain quality standards" (Departmental minutes, 2008). As recently as March 2018, however, the local newspaper, *Public Eye*, carried the following article: 'Slipping standards at NUL under close scrutiny' (*Public Eye*, 2018: 16-17).

These concerns, and others of this nature, justify investigation of teaching and learning at NUL. While these concerns were documented as far back as 2008 (as indicated above), it was only in 2014 that the university introduced the SET tool to assess teaching quality. However, SET was designed to cater for contact teaching whereas NUL, like other HEIs, was forced into adopting online teaching and learning at short notice in the second semester of the 2019/2020 academic year. Ramirez-Hurtado *et al.* (2021) acknowledge that

universities were forced to quickly re-design courses meant for contact teaching to suit online teaching, in the wake of COVID-19. While NUL might have been using SET to assess the contact teaching quality concerns, this new mode of teaching (online) has stretched the need to assess the quality of online lecture services. To achieve this, NUL needs to have an appropriate instrument, specifically designed for the online environment as SET (which was designed to assess contact teaching) cannot be readily used for this new mode employed at NUL. There may be existing instruments for assessing online teaching quality developed elsewhere, but they may not be suitable for HE in the Lesotho context. Thus, NUL currently does not have a way of measuring the quality of online lecture services. This study therefore heeded the call to address this gap by soliciting student and staff input on how to measure service quality in the context of online teaching and learning at NUL, in order to propose a relevant tool/model.

Besides responding to an identified need in the NUL/Lesotho context, there are broader reasons underpinning the need for such a study. Other researchers have singled out various reasons to assess HE service quality; for example, Thomas and Graham (2019) note that the rapid growth of programmes offered online has surpassed the rate at which online teaching is evaluated in courses offered online. Thus, the study assessed the researcher's teaching quality for the selected courses offered online. Udo, Bagchi and Kirs (2011) note how strategic and critical it is to assess e-learning quality, for a programme to survive. Teeroovengadum *et al., (*2016) assert that universities should gauge their quality of services on a sustainable basis, so that they can make improvements. Given all the above, it is clear that NUL should devise mechanisms to continually rate the quality of its services, specifically online lecture service quality, as perceived by students. The study's questions and objectives are clearly outlined in the sections which follow.

1.5 Research questions

The research questions (RQs) that this study sought to address are listed below, with the primary question denoted by PQ:

PQ What is an appropriate measure of online lecture service quality at NUL?

RQ1 What are undergraduate students' and lecturers' expectations of online lecture service quality at NUL?

RQ2 What are students' initial perceptions of online lecture service quality at NUL?

RQ3 How are students' initial perceptions of online lecture service quality affected, following interventions related to interaction between students and staff?

RQ4 How are students' initial perceptions of online lecture service quality affected, following interventions related to the lecture service production process?

RQ5 How are students' initial perceptions of online lecture service quality affected, following interventions related to the physical evidence surrounding the lecture service?

1.6 Research objectives

Aligned to the above questions, the research objectives are listed below, with the primary objective denoted by PO:

PO To recommend a way of measuring service quality at NUL

RO1 To identify what undergraduate students and lecturers at NUL expect and perceive in terms of online lecture service quality

RO2 To identify students' initial perceptions of online lecture service quality at NULRO3 To determine the influence of interventions related to interaction between students and staff, on students' initial perceptions of online lecture service quality

RO4 To determine the influence of interventions related to the lecture service production process, on students' initial perceptions of online lecture service quality

RO5 To determine the influence of interventions related to the physical evidence surrounding the online lecture service, on students' initial perceptions of lecture service quality

1.7 Significance of the study

With NUL being the largest university in Lesotho, in terms of both student population and disciplines (seven faculties) (NUL Newsletter, April, 2023), and it being funded by the government through taxpayers' money, it calls for immediate action if the taxpayers (the nation) raise concern about NUL's tuition quality and the quality of its products (graduates). Two major reasons suffice: first, NUL (based on it having the largest student population) contributes the largest share of the country's labour force and entrepreneurship base, as its graduates join employment or create their own enterprises. Marimon *et al.* (2017) consider students as learners who are transformed into qualified human capital aimed at meeting job market demands; thus, a university provides a high-caliber workforce. Pandey *et al.* (2018) note that since HE imparts knowledge which students practically apply later, it is imperative to assess the quality of such education. Dirkse van

Schalkwyk and Steenkamp (2020) corroborate this view by considering HE as a premier system that grooms highly skilled and professional workers for the nation. Therefore, if the students are not groomed well by NUL, both the public sector and private sector of this country are affected in terms of service delivery. Subsequent negative impact on the economy cannot be overemphasised. This study thus contributes to the production of a high-caliber workforce by scrutinising the production and delivery of online lecture services at NUL.

Second, the graduates' career opportunities beyond NUL may be at stake, particularly when extending studies with other HEIs elsewhere. It is therefore, imperative to determine service quality perceptions and expectations among undergraduate students at NUL, so that the institution can best address students' needs and the socio-economic demands of the country. The forced rapid adoption of online learning during COVID-19 (something that may have been unfamiliar to both students and staff), and the likely continued use of online/blended learning going forward, makes it important to explore students' evaluation of such teaching, to help develop future online offerings. The findings shall help NUL improve service quality, as rated regionally and internationally by such accrediting bodies as the Association of African Universities (AAU).

The study also adds value by using a different approach in terms of research design, compared to other studies of service quality in HE which primarily undertake quantitative survey-based research. By contrast, this study employed a mixed-methods action research case study design, whereby student and staff input on important service quality dimensions, with primary focus on the actions related to three selected Ps of the services marketing mix (i.e. *physical evidence*, *people* and *process*), was solicited in various ways. This active participation of students and staff (through action research) enabled development of a proposed measurement tool for assessing the quality of the online classroom service encounter (that is, teaching and learning) specifically. This is particularly important since limited work exists in the marketing literature in this regard. Marimon *et al.* (2017) indicate that, while researchers seem to agree on how relevant service quality is in HE, agreement on an appropriate measurement instrument remains a challenge. By identifying and assessing the impact of lecturer-controlled variables of the marketing mix, on lecture service quality in an online HE context, the study is contributing to the limited research on singling out those variables (of the marketing mix) in an e-learning setting. Uppal *et al*. (2017) note that while online channels are increasingly augmenting or replacing onsite educational services, online-learning options are adopted widely by education service providers as teaching and learning platforms of the future. Thus, it is high time

NUL assesses the quality of its education service offerings (lecture service quality in particular) as it begins to engage in online education service provision, which might remain the best option even in the future.

1.8 Rationale for the study

Trines (2018) alerts of the potential growth of e-leaning market in Africa as a continent, with the affordability of mobile data and smartphones and Internet penetration. The author considers this as motivation for HEIs to invest in online learning. NUL cannot, in any way, avoid these envisioned global changes in the HE landscape. The recent launch of a Postgraduate Diploma in Higher Education (PGDHE), which NUL offers purely online (CTL Report, 2023), is a clear sign of acknowledging this drastic change in HE. The Secretary General of the AAU points out that those universities considered traditional are now launching programmes online at a high rate. This is the situation at NUL, which therefore warrants investigation to ensure high-quality service quality. Ramirez-Hurtado *et al*. (2021) note that Internet usage in developing new technologies has brought about a huge change in both teaching and learning in HE. Thus, NUL would not want to deny itself a chance to partake in this market, and the time is now that it seriously considers online education service provision on a sustained basis, rather than as a 'responsive measure' to the COVID-19 pandemic. Udo *et al.* (2011) emphasise that it is critical to understand the impact of quality in e-learning as both education field as a whole and ways of delivering instruction are changing. Through this study, NUL will hopefully achieve higher levels of students' experience in terms of online learning and teaching while also filling gaps in service quality that might exist. NUL may also capitalise on continually evaluated lecture service quality to strategically recruit new students and gain greater market share.

Vlachopoulos and Makri (2021) observe that gaining experience and knowledge of e-learning methods by onsite-teaching institutions will help improve their teaching models, as far as online education is concerned. Thus, the study shall help NUL gradually devise effective assessment of online teaching methods, from the 'bottom-up'; that is from the students' perspective, to the policy-makers, to explore the full potential of this new mode of teaching and learning in HE. Lesotho is yet to have an oversight body for the newly-established online education field, while CHE regulates all onsite education quality offered by tertiary institutions in the country. Conducting this study shall provoke CHE and all other relevant authorities to consider monitoring online education in the HE sector in Lesotho. This may lay a foundation for CHE to readily regulate online education in the future, as online learning and teaching might still be relevant to NUL and other local HEIs even post COVID-19. Schijns (2021) notes that systems used in online learning are likely to remain utilisable even after the COVID-19 pandemic, meaning that a study into online teaching

quality will have ongoing relevance, and will not just be pertinent for the duration of COVID-19-imposed online learning.

Thomas and Graham (2019) acknowledge that evaluating instructors' teaching online is a developing field of research. Thus, this study contributes to this developing field. The study differs from existing studies in relation to both its focus on the *lecturer-controlled* elements of the marketing mix (*process*, *people* and *physical evidence*) in influencing the service quality of the classroom experience (that is, lecture service quality), and its intention to propose a tool/model which lecturers could use to measure the quality of the classroom service encounter specifically (whereas other studies tend to use the generic SERVQUAL tool or other HE-specific tools, which do not focus specifically on the classroom encounter). Furthermore, the focus of this study was on the *online* classroom experience. With the move to online teaching and learning since COVID-19, there is even more reason for NUL to assess teaching and learning and this study provides direction to undertake such exercise.

1.9 Overview of methodology

The study was an action research case study, based on mixed methods, but with primary focus on the qualitative approach. This was motivated by the fact that previous related research tends to be quantitative, and it was felt that the study might enable new or deeper perspectives through adoption of a qualitative approach. Action research was considered suitable for the study for the main reason that it involves those in practice (the researcher as an instructor, in this instance) and, by widening participation, includes others affected (students, teaching staff and CTL staff). In line with the aim of the study, of improving online learning and teaching for both students and instructors, "action research is a way of describing, interpreting and explaining events (inquiry) in an attempt to change them (action) for the better (purpose) (McNiff *et al.*, 1996: 11)". Action research was therefore appropriate in investigating one's own field, that is, the researcher's teaching at a higher learning institution, NUL.

Non-probability sampling, namely, purposive sampling, was employed, whereby the researcher sought out elements that met specific criteria; for example, students on the main campus (Roma) and registered for the selected courses. (As indicated above, the researcher explored the service quality of the online classroom experience in the context of three fourth-year modules that he delivered. This practitioner-based research approach was in line with the action research design that was adopted).

Primary data was collected remotely through an online survey administered via Google Forms to 182 students from the three selected courses (139 + 22 + 21, respectively), Zoom-mediated focus groups with a total of 40 students (30 from the three selected courses and 10 from the BCom Association), and Zoom-mediated individual interviews with 14 staff members (nine DBA lecturers and five staff from CTL). In addition, observation of the researcher's online teaching practice took place. Secondary data was collected from CTL and DPO documents on the evaluation of teaching activities at NUL. Qualitative data was analysed through thematic analysis (data gathered via interviews and focus groups) and content analysis (documents); for the quantitative data (survey), descriptive statistical analysis was done using Microsoft Excel.

The study's methodology is explained and justified in detail in Chapter Three.

1.10 Delimitations of the study

With regard to the student participants, the study focused on students in three selected courses (Strategic Management; Integrated Marketing Communications; Services Marketing) at one university (NUL). As indicated previously, the study was an action research case study involving practitioner-research; therefore, it was limited to those courses that made up the researcher's teaching load. At the time the data collection took place, all three courses that the researcher was responsible for were at the fourth-year undergraduate level. However, the focus on the undergraduate level was appropriate as undergraduate students form the bulk of NUL's student population.

The study focused only on three selected Ps (out of the seven appropriate in the services marketing situation), for the main reason that those Ps were pertinent in the teaching and learning activities carried out by the researcher, and they were controllable by the researcher.

1.11 Organisation of the thesis

This study is organised into the following chapters:

Chapter One (Introduction and overview) introduces and contextualises the study by providing background information, and highlights the problem that the study addresses. It outlines the study's research questions and linked research objectives, the methodology employed to reach them and the significance of the study. The chapter ends by pointing out the delimitations of the study.

Chapter Two (Literature review) examines the literature regarding online HE, service quality offering and measurement, and how it is perceived by students as major immediate stakeholders. The contributions of this study to both empirical research on the area as well as the knowledge-base are highlighted.

Chapter Three (Research methodology) sets out the methodology used to achieve the objectives of the study. It details the data-gathering methods/instruments used and how the data was analysed.

Chapter Four (Findings) presents, interprets and discusses the findings arising from an analysis of the data, for each stage of the action research process that was undertaken.

Chapter Five (Discussion and conclusion) considers the findings in relation to the study's objectives. It also sets out the contribution, recommendations and limitations of the study.

1.12 Conclusion

The chapter has highlighted the importance of offering high-quality services in the HE sector. It has argued that it is only when HEIs are able to measure service quality that they can monitor it. However, it remains unresolved how best to gauge service quality in the HE sector, particularly in relation to the quality of the classroom experience. The movement of NUL from contact to online teaching and learning calls for a rethink of how teaching quality is assessed in that setting. The quality of both tuition and graduates of NUL has been unfavourably perceived by the outside world. Conducting this study will enable redress on this negative perception by stressing the importance of consistent and systematic monitoring and evaluation of lecture service quality.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter starts by differentiating a service from a product, with specific reference to HE as a service. It considers the online teaching and learning mode in HE. This is followed by interrogation of the marketing mix in the HE context, with specific reference to the three selected Ps – *people*, *physical evidence* and *process* – under focus in the study. The chapter also covers service quality in general, as well as service quality and its measurement in HE, specifically in the context of online teaching and learning. It ends by outlining the conceptual framework devised for the study.

2.2 Services

There has been an enormous shift from a manufacturing-based to service-based economy (Tuan, 2012), with services being core business while service quality is considered a strategic priority (Dirkse van Schalkwyk and Steenkamp, 2020). Brodie, Löbler and Fehrer (2019) argue that all economies are service economies since a service forms the basis for all exchanges and co-creation of value relationships. Rao (2011: 4) defines a service as "activities, benefits or satisfactions which are offered for sale, or are provided in connection with the sale of goods". Ivy (2008) explains that a product is what is physically being sold and that it goes beyond tangible features to include a complex bundle of benefits from which a customer derives satisfaction. In distinguishing between goods and services, Cole and Guillin (2015) note that services result from an action or performance by an individual or a group, while goods are produced, kept and later delivered for sale. Ivy (2008) acknowledges the debate concerning what a university sells, with some proposing that students become the raw materials of education as they register for a programme and products upon graduation, while potential employers become customers (to the university). Chung *et al.* (2000) argue that the acquired skills and knowledge, which are acknowledged in the form of certificates and awards, are 'products' in the HE context. Aurangzeb (2019) argues that the pre-condition for producing good 'product' is for universities to provide a quality teaching-learning environment. That is, NUL's lecture theatres, amongst other facilities, are likely to contribute to the quality of its 'products' (graduates) in terms of their readiness for industry (Verma & Prasad, 2017) and perception by such (De Jager & Gbadamosi, 2010). This is interesting, considering that the tuition quality at NUL is already a concern (*Lesotho Times*, 2016).

This study utilised Rao's (2011) and Surman, Eszter Toth and Dano's (2022) definition of a service whereby a lecture service is an activity, satisfactions and benefits being sold to students; that is, lecture services are services which are not provided in alongside the sale of goods.

2.2.1 Higher education as a service

According to Gruber *et al*. (2010), HE is a 'pure' service. They, however, caution that services in educational settings are distinct from those provided by professional service-providing organisations in terms of how they impact students' lives, and students need to be motivated and imparted intellectual skills to reach their goals. They conclude that HE can be considered a business-like service industry that should meet or even exceed students' expectations in terms of their needs. Thus, NUL has to carry out the academic enterprise in such a way that it fulfills its students' expectations.

In considering HE as a service, Alhazmi (2022) specifies development, decision-making processes and strategic plans as paramount in impacting students' experiences since students as customers demand high service quality. The author acknowledges that HE is one of the rapidly expanding service industries, affected by global processes. He observes that continually-changing financial assistance and demographics determine the services that HEIs can readily offer. That is, NUL may be restricted by subvention from government to realise substantial development in such crucial areas for online teaching and learning, such as ICT infrastructure. For Sitanggang, Luthan and Hamid (2021), HE is a service that satisfies students (as customers). They argue that this satisfaction leads to loyalty, which they display by completing all assigned work and feeling optimistic in the learning process.

HEIs are considered service organisations, which have to ensure delivery of quality to their multiple stakeholders (Marimon *et al.,* 2017), including accrediting agencies and public and private organisations that act as sources of funding (Ng & Forbes, 2009). Ng and Forbes (2009) underscore the university's role of developing knowledge and understanding that will be utilisable to society, nation and state. Thus, NUL graduates should be readily utilisable as they complete their studies. Dirkse van Schalkwyk and Steenkamp (2020) corroborate this view by considering HE as a premier system that grooms highly skilled and professional workers for the nation.

Ame and Tegambwage (2016) note that the HE sector differs from other service sectors, such as the retail commercial sector, primarily in terms of method of service delivery. For example, in the teaching experience, a professor's lecture is simultaneously 'produced' and 'consumed' by the student as s/he partakes in the process. Chung *et al.* (2000) note that for HE, a service transaction comprises the professor's

moods, the circumstances under which it is rendered (for example, the comfort of the classroom), the student's human traits and the course material (the contents of the service). They state that all of these bring about variations in the service encounter (lecture service). Thus, students might observe variation as the instructor delivers lecture services online.

Barnes (2007) highlights that the competitive state of the HE sector has threatened returns. Ivy (2008) emphasises that the most intense competition is between traditional universities, and independent and private universities where joint ventures and franchise operations further fragment the already competitive market. Khaola and Thetsane (2021) note that the founding of Botho and Limkokwing universities in Lesotho recently has given students a choice, thereby intensifying competition for NUL, in terms of student recruitment.

In Morocco, Goumairi, Aoula and Souda (2020) observe that students' role as stakeholders is essential. In relation to this study, students' role in the production of online lecture service came under focus, as the production process was represented by *process* in the three selected Ps. These authors (Goumairi, Aoula and Souda, 2020) conclude that universities are faced with a serious challenge of satisfying students, as far as a service is concerned.

Khan, Siddiqui and Rais (2021) argue that physical evidence in HE settings (infrastructure and academic staff) does not satisfy students on its own. This is pertinent, considering that physical evidence (along with *people* and *process*) was a focus of this study. It is also interesting to note that for these authors, academic staff is regarded as physical evidence while this study, that of Anane-Donkor and Dei (2021) and others of that nature instead categorise academic staff as people who interact with students during lecture service production, delivery and consumption.

In their study in Karachi University in Pakistan, Khan, Siddiqui and Rais (2021) discovered that the quality of education in under-developed countries is a serious problem. They recommend a clear plan and utilisation of quality systems and tools for improvement. Thus, this study will help the HE sector in Lesotho, an under-developed country, by proposing a lecture service quality measurement tool for online learning and teaching.

Khan, Siddiqui and Rais (2021) consider service quality in education as that which adds value in education; they note that in recent years, HEIs are very concerned about the improvement of service quality, educational and teaching standards.

Dahleez, El-Saleh, Al Alawi and Abdelfattah (2021) observe that quality of HE in a given country determines how competitive such country would be in the global knowledge economy. Thus, as NUL starts to participate in online teaching and learning, thereby eliminating location barriers, it has to be vigilant of service quality, so that it can meaningfully participate in the education market in future. Dahleez *et al.* (2021) note that in Jordan, as they serve large student populations, universities remain competitive by improving service quality. Given yearly increases in enrolment at NUL, the institution shall have to strive to uphold online teaching quality, in order to satisfy students. Dahleez *et al.* (2021) assert that PHEIs, especially universities, utilise service quality in informing their operations and assessing levels of student satisfaction, so that they can successfully fare in the global education market. Amoako, Ampong, Gabra, de Heer and Antwi-Adjei (2023) observe how social media platforms and systems in the global ranking have intensified competition for education sector. They specify that the HE space in Ghana has thus become very competitive. Due to this competiton, Mulyono, Hadian, Purba and Pramono (2020) note that HEIs' main goal is now to attract and retain students. NUL is confronted with competition for new students from both Botho University and Limkokwing University.

Regarding service quality in HE, Mulyono *et al.* (2020) advise that innovation, diversification of structures and effective provision of services to students should be prioritized by universities. Changes in ICT are a challenge confronting teaching and learning recently (Amoako *et al*., 2023), such that it now takes place online, which has a bearing on quality. Thus, this study interrogated the quality of the lecture service offered by NUL online.

2.2.2 The higher education sector in Lesotho

Like other countries in the region (SADC), HE in Lesotho is provided by both public and private institutions (Thetsane, Mokhethi, Malunga and Makatjane, 2020). Lefoka (2023) observes that HEIs in Lesotho are guided by the Higher Education Act of 2004, which established the Council on Higher Education Lesotho. The author mentions that the Higher Education policy singles out the following areas of significance to the HE context in Lesotho (Higher Education Policy for the Kingdom of Lesotho, 2013):

- Quality assurance in HE
- Responsiveness among HE providers to the needs and perceptions of the students they serve
- Relevance of HEIs' programmes to the labour market

According to Lefoka (2023), while CHE ensures quality in HEIs by encouraging them to strengthen their own internal quality assurance systems, these institutions need to continually assess needs and perceptions of students they serve, particularly in terms of academic services rendered to students. NUL attempted to assess students' perceptions of lecture services offered onsite by developing a SET tool, although there were controversies regarding representation of the content of an effective teaching domain (Khaola and Thetsane, 2021).

To date, Lesotho's HE sector boasts 14 HEIs, three of which are universities (Letlatsa, 2018; Tlali & Mukurunge, 2019). Of these 14, the study provides a brief background information on only three, namely, Lerotholi Polytechnic, Limkokwing University of Creative Technology and Botho University. The basis for this choice is that Lerotholi Polytechnic is a Technical and Vocational Education and Training (TVET)-based HEI (Mosebekoa, 2018), thereby representing all other tertiary institutions which provide both vocational and training programmes in the country. The reason for choosing the two universities is that, they are direct competitors to NUL – the HEI under study. Khaola and Thetsane (2021) note that the founding of Botho and Limkokwing universities in Lesotho recently has given students a choice, thereby intensifying competition for NUL, in terms of student recruitment.

2.2.2.1 Lerotholi Polytechnic

Lerotholi Polytechnic is an autonomous but government-funded public HEI established in 1905 (Mosebekoa, 2018, Thetsane, Mokhethi, Malunga and Makatjane, 2020), offering both Crafts and Technician programmes under the Schools of Engineering and Technology, Built Environment, Enterprise and Management, and Continuing Education. Mosebekoa (2018) and Rasethunts'a and Maseru (2021) mention that the institution liaises with industry for industrial attachment of students and sometimes industry-players award best performing students, while also employing students upon completion of studies.

2.2.2.2 Botho University

According to Matee, Motlohi and Nkiwane (2023), Botho University is a private university which was launched in Lesotho in 2015, with three faculties, namely, Business and Accounting, Engineering and Technology, and Health and Education. Botho University competes with NUL for student recruitment in particular (Khaola & Thetsane, 2021) while students have equal (to those at NUL) chances of securing sponsorship from the government.

2.2.2.3 Limkokwing University of Creative Technology

Turugare and Rudhumbu (2020) and Nkhi, Mofana and Moqasa (2023) explain that Limkokwing University of Creative Technology was launched in 2008 in Lesotho and offers mostly associate degree certificates in the fields of marketing, entrepreneurship, ICT, media and broadcasting, amongst others. Limkokwing University of Creative Technology competes with NUL for student recruitment in particular (Khaola & Thetsane, 2021) while students have equal (to those at NUL) chances of securing sponsorship from the government. Matee, Motlohi and Nkiwane (2021) identify closeness (to each other) of NUL's BCom programme and Botho University's Faculty of Business and Accounting, thereby intensifying competition between the two institutions, in terms of student choice.

From these backgrounds, it can be seen that while Lerotholi Polytechnic and other institutions of its nature in the country offer craft and technician programmes, which NUL does not readily offer, Limkokwing University and Botho University compete on equal footing with NUL in terms of student recruitment. The competition is further stretched between NUL and Botho University because of the similarity of programmes offered at NUL under the BCom programme and those of Botho University under the Faculty of Business and Accounting.

2.3 Online teaching and learning in higher education

Al-Adwan, Albelbisi, Hujran, Al-Rahmi and Alkhalifah (2021) note that electronic learning (e-learning) systems are used globally in HE and highlight the importance of assessing their effectiveness. La Rotta, Usuga and Clavijo (2019) acknowledge the significant growth of HE programmes offered online, underscoring a need to evaluate their quality. Martin and Bolliger (2022) consider online learning as equally effective to the traditional mode. In Australia, Sultan and Wong (2018) discovered that study mode (contact or online) does not regulate service quality's impact on the satisfaction of students. Thus, this mode of teaching (e-learning) is arguably steadily becoming the main mode of delivery in various parts of the world; hence, the Lesotho HE sector has to ready itself to embrace it by consistently and systematically measuring online teaching quality (lecture service quality).

This study utilised Al-Adwan's (2021) assertion that electronic learning (e-learning) systems are used globally in HE. That is, online teaching and learning taking place at NUL may be similar to that taking place at any other HEI.

Ayanwale *et al.* (2023) observe that online learning happens through the Internet. They, however, note that online teaching and learning has been experiencing challenges in Sub-Saharan Africa (such as Lesotho), mainly because of limited Internet access, high costs of data, and power-cuts, among other reasons. They recommend devising policies for online teaching and learning, outlining details of using electronic learning and teaching resources. This study began to fill this gap (in policy formulation) as it solicited views of teaching staff and students on the online lecture service quality offered by NUL, which could be of use as a policy is developed for HEIs in Lesotho and elsewhere. Data-bundle and Internet connectivity challenges have characterised online teaching and learning implementation at NUL recently. In their study on how massification of the education has affects quality assurance in Lesotho HEIs, Tlali and Mukurunge (2019) acknowledge that the e-library facility introduced in some HEIs in Lesotho has facilitated access, although limited availability of computers hinders convenient access by students. They recommend that while design and delivery of courses online could reduce the student population on campus, HEIs should first put requisite mechanisms in place, in order to offer high quality online learning; for example, technological infrastructure that corresponds with the online mode of delivery. They note that this will reduce overcrowding in classrooms (such as Google classrooms) while ensuring quality. Mosia and Phasha (2020) discovered that information and communication technology (ICT) resources at NUL are lacking in terms of teaching and learning. This relates to the *physical evidence* element, which was the focus of this study. Al-Adwan *et al*. (2021), however, assert that through e-learning, access to resources by students is not limited to time and location; thus, the mode is flexible.

This study utilised Ayanwale *et al's.* (2023) observation that online learning happens through the Internet. That is, for this study, online classroom experience refers to lecture service production, delivery and consumption of lectures on such platforms as the thuto learning management system, which uses internet.

HEIs use various online teaching and learning tools that suit their context, with varying challenges. Maphosa (2021) and Mfaume (2019) note the hindrance posed by Internet costs in delivering content online in Tanzania. In South Africa, effective teaching and learning has been impeded by limited access to online learning tools by lecturers in rural areas (Dube, 2020). The need to train lecturers on the Moodle learning management system was reported by Mpungose (2021), in a study of thirty-one South African lecturers at two universities. Satellite broadcast is used by the University of South Africa, (Ayanwale *et al*. 2023), which is cost-effective but not as interactive as video conferencing. Amponsah (2021) observes the spontaneity of Teams as a video conferencing tool, indicating that it enhances the online teaching experience. Ayanwale *et al.* (2023) discovered that one of the HEIs in Lesotho uses Teams for online learning, while Zoom is used at NUL, which requires stable internet connectivity, minimises student

participation and complicates the learning process. The authors assert that this negates efforts towards developing education in Lesotho's HEIs. Sepiriti (2021) discovered that thuto (an online learning management system) at NUL fails to be accessed all at once and on weekends, thereby limiting levels of participation of students. On the contrary, Makumane (2021) advances thuto's proficiency in terms of access of content and structured communications, by both students and lecturers.

Makafane and Chere-Masopha (2021) discovered students' dissatisfaction that lecturers at NUL simply 'dumped' assignments and lecture notes on thuto, without explanation, and lamented NUL's lack of support for online learning, specifically in terms of digital infrastructure and availability of requisite resources to students. The authors recommend use of Zoom and WhatsApp, on top of thuto, for effective online learning at NUL. Google Meet, Henaku (2020) argues, needs to be downloaded ahead of class and students take time doing that. Ayanwale *et al.* (2023) claim that online (electronic) learning brings about new opportunities to the classroom environment, while online teaching and learning tools enhance both students' and lecturers' knowledge in technologies. They conclude that as far as Lesotho HEIs (NUL included) are concerned, tools used in the electronic learning possess more weaknesses than strengths. This is worrisome, considering that, amongst other tools, NUL's thuto (which is its major tool for online learning), was discredited in a study by Ayanwale *et al.* (2023), as well as in those of Sepiriti (2021) and Makafane and Chere-Masopha (2021). Ayanwale *et al.* (2023) conclude that exclusive use of online teaching and learning tools will negatively affect the quality offered by HEIs in Lesotho, and recommend blended learning instead.

Concerning interaction in the online teaching and learning setting, Mwiya *et al.* (2019) state that for one Zambian public university, smaller class sizes for distance (online) students enable higher interaction with a lecturer. Interaction between the lecturer and students in the selected courses (offered online) was a focus of this study, denoted by *people* in the selected Ps. Al-Adwan *et al.* (2021) assert that interactions between students and instructors determine the success of e-learning. Ayanwale *et al.* (2023) discovered that students in Lesotho HEIs are not meaningfully participating in online learning and teaching; they simply log in or read their Facebook and WhatsApp chats. They recommend active engagement of students through maintenance of the same level of interaction (as in the face-to-face mode) for students to better concentrate in class, and state that students should listen attentively for learning to be effective.

Regarding student satisfaction with online teaching and learning, various authors consider factors and/or roles impacting this satisfaction. Bagur-Femenias, Llach and Buil (2023) posit that in business schools, factors which influence student choice and satisfaction are important in ensuring service quality, especially

in e-learning, such that Business School Quality (BS-QUAL) was developed to strategise on meeting student expectations as services are provided in HE. They acknowledge the importance of physical environment (and conditions, in the online context) for teaching and learning, which they say satisfies the student. In assessing student satisfaction dimensions contributing to overall satisfaction at NUL, Mokhethi, Malunga and Thetsane (2019) observe that e-commerce enables students to comfortably access HE in other countries; for example, online free short courses that enhance their academic performance. Martin and Bolliger (2022) assert that online student learning is rather impacted by student satisfaction, and that this satisfaction is brought about by the quality of courses offered online. Thus, the students in this study might derive satisfaction from the selected courses offered online, only when quality is ensured.

Service quality in online teaching and learning has been under scrutiny, with Al-Adwan *et al*. (2021) considering it to comprise instructor quality and support service quality. This study interrogated the instructor quality dimension, as it investigated the researcher's interaction with students and his production process of lecture services offered online. Al-Adwan *et al.* (2021) claim that online delivery of high-quality course content encourages students to use the e-learning system. Bagur-Feminias *et al*. (2023) note the importance of HEIs being up to date with online platforms and content, as far as students' perception of quality is concerned. They lament the limited research on how students perceive academic quality. This is acknowledged by Huliatunisa, Suhardan, Permana, Nurdin, Yohamintin, Rasyid and Sabban (2022), who note the significant role played by quality of lecturers' academic services in maintaining student-lecturer collaboration. Arasid, Abdullah, Wahyudin, Widiaty, Zakaria, Amelia, and Juhana, (2018) note that these factors (online platforms and content), in conjunction with learning styles, are related to how students perceive service quality. Lecture service quality, which was the focus of this study, might be considered the major component of academic quality. Thus, the study expands the limited research as it attempted to understand students' perception of online lecture service quality at NUL, a HEI, specifically for the classroom environment.

The success of online teaching and learning has attracted the attention of researchers, whereby supporting systems become a challenge to integrate with innovate learning systems in HEIs (Al-Adwan *et al.*, 2021).

Concerning interventions put in place during learning online, Marti and Bolliger (2022) observe that limited literature exists on the quality of online interventions during learning. Thus, this study attempted to address this gap as the researcher implemented interventions related to *people*, *process* and *physical evidence* and then observed the influence on students' perceptions of lecture service quality. This adds to the knowledge-base.

Many researchers are concerned about the effectiveness of online teaching and learning, and hence the service quality offered under this mode. This study has the same concern, specifically about the lecture service quality offered by NUL under this mode. The study thus attempted to understand students' perceptions of the lecture service quality, so that improvements could be made and a measurement instrument could be developed, to measure the service quality in this context.

2.4 The marketing mix for higher education

Marketing-related issues are gradually being given attention in HEIs in situations where HE is understood as a long-term investment whose returns, as viewed by students, may include absorption into the job-market after graduation and the accompanying salary-scale (Gallifa & Batalle, 2010). The marketing aspects emanating from this comprise attraction, satisfaction and retention of students as customers of HEIs (Teeroovengadum *et al.*, 2016).

The traditional '4Ps' marketing mix framework is argued to fall short in adequately addressing specific marketing situations, such as the marketing of services (Constantinides, 2006; Tijjang *et al.*, 2017). Ivy (2008) considers the marketing mix as the many possibilities that a university can handle, to elicit response towards the services it offers. He indicates that these marketing tools are controllable and identifiable for the marketing of services as product, promotion, price, place, physical evidence, processes, and people. During students' selection process of a business school, marketing mix elements become important (Ivy, 2008). Although the study focused on the selected 3Ps (*people*, *process*, and *physical evidence*), over which the lecturer can exercise control, it was imperative to first look at the model (i.e. the 7Ps model for services) as a whole, in relation to the NUL context. Thus, based on Ivy's (2008) interpretation of the 7Ps in the context of South African MBA business schools, the 7Ps in relation to NUL may be outlined as follows:

- **Product:** The various degree programmes attained upon completion of tuition. This is largely beyond the control of individual lecturers.

- **Price:** Programme fees charged by NUL upon students' enrolment and subsequent tutelage; normally supported by government, especially for undergraduate training, for up to 80% of the student population (Student Records Office, 2017/2018 academic year). Given that most undergraduate students' studies are funded by the government, price is unlikely to be an important factor in their assessment of lecture service quality at NUL. For this reason, and because price is something over which the lecturer has no control, this P was not included as a focus of the study.

Ivy (2008), however, argues that in situations where students pay tuition, the pricing element impacts both their perceptions of service quality and a university's revenue potential.

- **Place:** This relates to where/how NUL provides tuition to registered students. Four campus-based distribution centres are used. At the main campus in Roma, students register for full-time studies; part-time study is offered at the other three campuses. NUL has recently started using distance-learning modes such as the thuto learning management system and Zoom to provide tuition to its target market, in response to COVID-19. Issues of place are generally beyond the control of individual lecturers. Ivy (2008) identifies the following as mechanisms enabling access to a lecture service: virtual learning media (for example, Moodle), distance learning options such as web, video and teleconferencing, post, email, block release and pod-casts. Uncles (2018) emphasises that students use such devices as laptops and tablets for their study and they value learning when it occurs anywhere (online) anytime (online) and anyhow (either online or onsite). Place is also beyond the lecturer's control; hence this P was not included in the focus of the study.

- **Promotion:** In addition to radio and television advertising, NUL vigorously embarks on open-day events and participates at the National Tertiary Institutions Exhibition organised by CHE on a yearly basis. These platforms enable NUL to inform, persuade and remind prospective students to make NUL their study destination (Communications and Marketing Department – Student Guide Manual, 2015). Again, such activities are largely beyond the control of individual lecturers. However, Raza and Irfan (2018) indicate that, when satisfied, current students usually relay positive news about the institution to prospective students. That is, by providing a high-quality lecture service to current students, NUL will automatically be marketing itself through them. In other words, service quality could be used as a services marketing strategy for student outreach efforts (Tan and Muskat, 2016). Mwiya *et al.* (2019) discovered that perceived service quality in HE triggers a positive word-of-mouth about the institution. Thus, a favourable perception of online lecture service quality by incumbent NUL students could lead to the students talking positively about the image of NUL. Letlatsa (2022) notes the importance of developing communication strategies by three HEIs (including NUL) in Lesotho, as they relay information to stakeholders.

- **People:** This element includes both non-academic and academic staff of the university, with whom students interact – from the receptionist addressing students' inquiries, to a professor delivering a lecture. The focus of this study was on academic staff, due to their role in the classroom service encounter. Dicker *et al.* (2018) assert that undergraduate students highly regard academic staff

competence in dimensions of quality. The quality of academic staff, Misnan *et al.* (2018) argue, helps create knowledge value displayed through curriculum, structure and delivery of programmes. Thus, the quality of the instructor in this study, how he structures and delivers programmes for the selected courses, as well as how the students learn, are all related to how these students perceive the classroom service encounter. Ivy (2008) notes that the academics' public profiles, that is, their professional titles, influence students' choice and perceptions of teaching staff reputations. Douglas *et al.* (2006) explain that where a service encounter involves two or more people, the service provider's behaviour in terms of communication skills, timeliness, attitude and friendliness become critical for service quality. That is, the lecturer's warmth and politeness are of paramount importance as he/she interacts with students. During these interactions, the human element manifests; Constantinides (2006) observes that this is included as a new parameter in the services marketing mix as *people* (which is of interest in this study). Udo *et al.* (2011) warn that in the online teaching and learning, the instructor only facilitates the process while students participate actively to acquire knowledge. The learning outcomes ultimately achieved are, therefore, the responsibility of both the instructor and the students (Dicker *et al*., 2018). That is, the quality of lecture service achieved would have been the contribution of both the instructor and the students. Tlali and Mukurunge (2019) point to undesirable student-teacher ratio in Lesotho HEIs, which they say it negatively affects student learning and provision of individual attention to students. This ratio, Khaahloe (2010) claims, is so high in Lesotho HEIs that assessment is mostly theory-based, which she argues is not sufficient in HE. Masoumi and Lindstron (2011) suggest that while success in the e-learning environment is largely determined by teachers' specific subject knowledge, pedagogical knowledge and qualifications, HEIs should provide technical and pedagogical support as teachers develop and deliver courses/programmes online. NUL may be heeding this call as it has started providing workshops (although occasionally) on e-learning.

- **Physical evidence:** This relates to all readily visible elements such as the appearance of lecture theatres and teaching materials aiding delivery of the lecture service to students. Ivy (2008) considers physical evidence as a variety of tangible aspects from teaching materials, buildings to lecture facilities. Uncles (2018) points to university websites, collaborations sites and e-learning and tuition materials as forming an ideal situation for learning. Mokhethi, Malunga and Thetsane (2019) assert that 65.3% of NUL students were dissatisfied with programme factors and university environment and attractiveness.

- **Process:** This specifies the process of service production whereby NUL teaching staff and students co-act to produce a desired outcome, such as excellent tutoring and subsequent success in examinations. Process in the HE context involves administering registration, course evaluation and examinations and ultimately release of results and graduation ceremonies (Ivy, 2008). He warns that this process (unlike tangible products) is paid for well ahead of consumption (by students) and often requires person-to-person contact. In acknowledging this person-to-person (teacher-to-student) contact, Aurangzeb (2019) states that course content should incorporate those activities which students value in their day-to-day life experiences. He argues that this factor facilitates students' contribution and participation in the classroom. Therefore, this signifies that the researcher (as the instructor for the selected courses in this study) has to design and deliver course content such that it touches on students' daily life experiences. Mokhethi, Malunga and Thetsane (2019) advise that NUL could adjust processes (especially teaching processes) and systems to enhance student experiences. They conclude that assessment of factors contributing to students' satisfaction has not yet been done by NUL. This provided motivation for this study to assess students' perception of lecture service quality offered online at NUL, as this directly affects their level of satisfaction and university experience. Mwiya *et al. (*2019) note growth in institution-wide feedback on the quality of service experience, which they argue is characterising universities across the globe. This study differs from considering institution-wide feedback since it exclusively considered students' classroom experience. Abukari and Corner (2010) remark that HEIs in developing countries (such as Lesotho) have to contextualise the concept of quality to better serve their stakeholders. This study has heeded this call by undertaking assessment of students' perceptions of online lecture service quality in the Lesotho HE context.

Anane-Donkor and Dei (2021) discovered a relationship between the rate at which students enroll at HEIs in Ghana and different elements of marketing mix. For Anane-Donkor and Dei (2021: 12), marketing mix elements (7Ps), in the context of HE, are: "product (programs/courses), price (fees/charges), place (location/environment), promotion (advertisement), process (admissions/procedures), physical evidence (facilities/ infrastructure) and people (staff/faculty)". They argue that achievement of satisfaction of students is the paramount goal of marketing HEIs. Therefore, NUL may use the marketing mix to positively impact levels of satisfaction which the students attain from online lecture service delivery.

Thus, this study utilised Anane-Donkor and Dei's (2021) interpretation of the 7 Ps model and concluded that the selected 3Ps under focus are lecturer-controlled while the rest of the Ps are not; that is, *physical*

evidence, *people* and *process* were considered to be under the influence/control of lecturers in the context of the online classroom experience.

While NUL may be using the 7Ps in order to meet or exceed students' expectations, students are also likely to engage these 7Ps in their evaluation of lecture services offered by NUL. In particular, the contribution of *people, physical evidence and process* in this evaluation was investigated by this study. These three Ps were singled out because of their pertinence to the lecture or classroom encounter, and because lecturers have some degree of control or influence over them.

Regarding e-learning, Masoumi and Lindstrom (2011) warn that technological infrastructure (which this study considers as representing *physical evidence*) is so dynamic and rapidly changing that HEIs should keep on improving it systematically and updating it regularly since it is an important feature of the e-learning environment. Thus, NUL's learning management system, thuto, along with other accessories, should be continually updated. De Jager and Gbadamosi (2010) acknowledge that prospective students use physical evidence in evaluating HE services, hence the significance of effectively arranging this service attribute. It should support the learning activity (Tuan, 2012) in which students take part. Verma and Prasad (2017) specify that proper infrastructural support, especially in the classroom setting, augments students' learning, while Woldeamanuel and Goshu (2019) add that achievement of high quality in education is made possible by the provision of sufficient levels of resources such as textbooks, instructional materials and buildings (which all tend to be physical; hence, physical evidence that can readily be used by students to judge service quality). That is, while NUL has to provide adequate resources such as buildings, instructors can effectively arrange such resources as textbooks and instructional materials to facilitate student learning activities in the classroom. Tlali and Mukurunge (2019) observe that failure by the government of Lesotho to capacitate HEIs to accommodate massive enrolment from high schools has compromised HE, particularly because the increase in enrolments is not matched by an increase in relevant infrastructure. They single out overall quality assurance as being at stake under such conditions. Of significance to this study was the number of students in class, since it differed across the three selected courses, with potential implications for lecture service delivery.

Abbas (2020) identifies a number of items in the classroom that enable provision of service quality (WiFi and Internet facilities, projector and enrolment number in class) which, along with cleanliness and up-to-date physical structure of the classroom, facilitate students' concentration on learning. As can be seen, many of these attributes can be 're-arranged' by the instructor to enable learning; for example, the projector being used for a lecture service.

In the context of online education, Masoumi and Lindstron (2011) acknowledge e-learning as a new approach to education, teaching and learning. Thus, NUL is actually engaging in a new mode of delivering lecture services (online teaching), and the challenge is to enhance and assure the quality of such. Masoumi and Lindstrom (2011) argue that quality principles underpinning how successful teaching and learning online can be are the same as those for contact teaching, but warn that universities should devise and implement a quality assurance plan specifically aimed at e-learning programmes. They explain that learning occurs through interaction between students and programmed instructional systems (such as thuto used by NUL). They conclude that this form of interaction is vital in e-learning settings since it directs students' efforts in exploring all platforms for interactivity; thus, under e-learning, more planning is necessary to facilitate this interaction, as compared to contact-learning settings.

Tlali and Mukurunge (2019) claim that, in terms of systems, HEIs in Lesotho are slightly differentiated and those systems (for example, operational systems whereby assessment for most HEIs comprises internal assessment and final examination) have a bearing on quality assurance. They suggest that relevant systems should be effected to ensure quality. Thus, NUL has to think of drafting a specific quality assurance policy distinct to online education. Tlali and Mukurunge (2019) assert that, in coping with the impact of massification on Lesotho's HEIs, academic staff have had to improvise with limited resources to ensure high quality delivery, particularly lectures and assessments. Dicker *et al*. (2018) note that good preparation and delivery of teaching material facilitates students' active participation. That is, the instructor will bring students on board, in terms of participation in class, only when the teaching material is well prepared and delivered.

Du and Li (2018) note that online education service quality has been a concern, and that the European Foundation for Quality in E-Learning certifies online education in Europe, while different international organisations monitor the requirements for quality of online education services. Aoun and Amine (2021) note that satisfying the quality requirements and university policies were the major challenges Lebanon International University (LIU) faced in transiting from contact lectures to remote learning during COVID-19. In that transition, teachers were unfamiliar with teaching methods used for online delivery, while students were unprepared and there were no professionals trained to facilitate online teaching. NUL might have faced similar challenges as it abruptly moved from contact to online teaching and learning in the second semester of the 2019/2020 academic year, in the wake of COVID-19.

Uppal, Ali and Gulliver (2017) observe that students under the online mode record a lower level of expectation about interaction with other role-players (especially teachers and other students) in the

education service delivery. Producing PowerPoint slides and subsequently preparing the class are the main focus of the production and delivery process in the online setting (Riberio, 2021). Taiwo (2010) underscores the uniqueness of students in the learning process as they co-produce and consume a lecture service, hence playing different roles which have implications for improving the process; *process* was the focus of this study, as well as *people* and *physical evidence*.

Based on the above discussion, various authors seem to recognise the role played by services marketing Ps in HE.

2.5 Service quality

Deb and Ahmed (2018) state that when a service performance exceeds some form of standard, a customer is satisfied; otherwise she/he becomes dissatisfied. Atrek and Bayraktaroglu (2012) consider service quality in relation to how a delivered service conforms to a customer's expected levels on a consistent basis, and conclude that it is only when perceptions about the service performance are above what the customer expected that a high service quality level is attained. On the other hand, Tijjang *et al.* (2017) warn that when customers' expectations are not realistic, there is a likelihood of low total perceived quality. Gallifa and Batalle (2010) propose that the user or consumer of a service (in this case, the student) must be the one upon whose judgment of quality is based. Thus, NUL should understand the current expectations of its stakeholders, particularly students, in order to align its performance to those levels that give rise to satisfaction.

2.5.1 Service quality in higher education

Mwiya *et al.* (2019) note that research on university service quality in the African continent is scarce; thus, generalising findings of prior research becomes a challenge. This study attempted to contribute to filling this gap by assessing online lecture service quality perceptions of undergraduate students at one African university, NUL, in Lesotho.

Amoako, Ampong and Gabrah (2023: 5) define service quality in higher education as "a factor that has a major effect on the value and perceived knowledge transferred by a university (to students)". The quality of lecture service production and delivery was the focus of this study, represented by *process*, along with *people* and *physical evidence*.

Quiachon and Paulino (2023) argue that high quality service provision is critical for student satisfaction and enables a HEI compete and attain growth. Thus, by providing high quality lecture services, NUL will not only be attempting to outcompete Limkokwing University and Both University (locally) but will also be expanding its market share. Quiacho and Paulino (2023) note that service quality is likely to become a decisive factor as HEIs face challenges such as e-learning removing physical boundaries. Thus, lecture service quality may be used as a cutting-edge as NUL competes with other HEIs globally, for recruiting students into its online programmes, inclusive of the courses under focus in this study. Quiachon and Paulino (2023) note a significant role played by service quality in enhancing students' level of skills and competencies during teaching and learning, while those students are better placed to evaluate the service quality of HE as recipients. That is, the students in this study were developing both skills and competencies during the online teaching and learning activities, while they were in a position to evaluate the quality of lecture services offered by the lecturer/researcher. These authors (Quiachon and Paulino, 2023) conclude that service quality is proportionately related to student satisfaction, such that better service quality offered in a specific educational setting translates to increased student satisfaction. Thus, NUL can only increase student satisfaction by providing a better quality of lecture services.

For Oliso and Alemu (2023), service quality is so critical that poor delivery of academic services in Ethiopian HE system affects students' learning outcomes. That is, NUL students are likely to have a bad learning experience if poor lecture service quality is delivered. These authors specify that the quality of instructional practices informs good teaching practices, which may invite students to actively participate during the learning activities. Thus, the lecturer's state of instructional practices is likely to be associated with the level of students' meaningful participation in the online teaching and learning activities. Dennis and Ammigan (2022) discovered that service quality in HE helps marketing teams influence recommendation of international undergraduate students at HEIs in the USA, UK and Australia, while Ali *et al.* (2016) established the influence of HE service quality in terms of how international students become loyal to local institutions in Kuala Lumpur, Malaysia. Thus, there exists the potential for NUL to capitalise on high quality lecture services to expand into global education markets.

In Malaysia, Tan *et al.* (2023) discovered that perceived service quality positively affects how easy it is to use learning systems. Thus, perceived lecture service quality at NUL is likely to have a significant impact on the thuto learning management system, as far as how easy it is to use it and helpfulness is concerned.

Stodnick and Rogers (2008) assert that there exists no generally accepted definition of quality education, but that stakeholders, particularly students, are rather concerned about high-level performance in delivering

HE services. They conclude that instructors should regard themselves as providing a service, as in a common business sense. Gruber *et al.* (2010) corroborate this view by revealing that 'value for money' has been the subject of consideration by fee-paying students after fees were introduced in HE in Germany. That is, students changed their approach to education such that they started behaving more like 'customers' of academic institutions. NUL students pay for tuition and are likely to require 'compensation' in terms of high-quality teaching and learning services; this includes those on government's loan-bursary scheme and those who are self-sponsored. Ang *et al*. (2019) warn that, in most cases, students tend to have unrealistic expectations about a university even before enrolling. In addition, these expectations vary amongst student cohorts (Ng & Forbes, 2009). Ivy (2008) admits, however, that some factors/items (such as up-to-date computers) are considered a standard offering of a university by students. Thus, while NUL accepts that students join it with varied sets of expectations, there are those items that students expect without further consideration; for example, an ideal classroom setting that matches a university environment. Factors such as quality of instruction and professional interaction between the instructor and students might be 'standard offerings' expected by the students in this study.

Dicker *et al.* (2018) acknowledge the multidimensionality of quality in HE by indicating that stakeholders such as students, employees, funding bodies and employers may perceive it differently. They mention that this 'quality' has both tangible and intangible elements - course material and student services, respectively. In acknowledging that education service requires co-action between a professor and student, Chung (2000) agrees that a service cannot be divorced from the context in which it is provided. Service quality therefore lies in who provides it, how, when, where and to whom (Atrek & Bayraktaroglu, 2012). Relatedly, Chung and McLarney (2000) consider teaching as a service where a student actively participates; while participating, education quality is improved as students change their attitudes, skills and knowledge (Woldeamanuel & Goshu, 2019).

In highlighting the likely increase in competition both domestically and globally, Atrek and Bayraktaroglu (2012) mention that in HE, it is critical to offer high service quality (the first time) due to the fact that the dissatisfied customer (student) is unable to replace the service (when poorly performed). Thus, quality of teaching methodologies, positive attitude of teaching, quality of learning environment, and so on, are paramount factors for the HE academic environment (Workie *et al.,* 2017). Mokhethi, Malunga and Thetsane (2019) note a challenge of similarity of NUL content of modules, to those of its local competitors. Matee, Motlohi and Nkiwane (2021) identify closeness (to each other) of NUL's BCom programme and Botho University's Faculty of Business and Accounting, thereby intensifying competition between the two institutions, in terms of student choice. Mokhethi, Malunga and Thetsane (2019) therefore, single out

service quality as the factor that can help NUL distinguish itself. A university (and a college alike), being an education sector participant, is expected to render high service quality to students as recipients (Chandra *et al.*, 2018).

In considering the quality of the teaching-learning environment, Aurangzeb (2019) notes that effective teaching, quality and character of teacher and competence contribute to the ideal teaching-learning environment. For the instructor (the researcher in this study), students might readily observe how his competence, amongst other factors, enables a desirable teaching-learning environment, as they evaluate the lecture service encounter. This is particularly so since some elements of this teaching-learning environment are controllable by the instructor; for example, a discussion forum led by the instructor on the chat-room in the thuto learning management system.

HEIs are expected to perfect their missions in respect of teaching, research and knowledge transfer (Marimon *et al.*, 2017), with students being best placed to assess university quality as they directly receive the services offered. Yeo (2008) notes that teaching and learning are related, in that teaching is offered as a service while learning is attained as an experience. With regard to the specific focus of this study, Chung and McLarney (2000:485) assert that "teaching is a service encounter" and that 'the classroom experience' should be investigated from a service quality perspective. Dialogue, inquiry and reflection should be promoted on a sustainable basis, as a quality service in HE offers experiences (Yeo, 2008). Mokhethi, Malunga and Thetsane (2019) attribute a decline in student population from 9 460 in 2017 to 9 236 in 2018 to NUL's failure to fare competitively or to provide a fulfilling experience to students.

Where the choice of HEIs is wide, students' opinions about quality are critical (Rastoder *et al.*, 2015) and improvement of existing standards and student satisfaction is key (De Jager & Gbadamosi, 2010). Nabaho *et al*. (2019) argue that it is not known what determines students' perceptions of quality in HE.

This provided motivation for this study to explore these 'determinants', particularly from the students' perspective. Gallifa and Batalle (2010) note that a service quality approach can be used when analysing

HE students' quality perceptions, whereby quality in this sense measures levels at which a delivered service matches that expected by a customer.

Regarding service quality in the online setting in HE, Uppal *et al.* (2017) assert that to speed up customisation of products to meet students' needs, HEIs should manage e-learning and assess quality accurately. They observe that the production and delivery of online course material is both expensive and

time-consuming. They conclude that online learning negatively impacts the learning experience for students as the interaction of students is limited; thus, online courses are perceived to be of lower quality, while there is variation in the extent to which courses offered online succeed. Thomas and Graham (2019) note that, discussion boards facilitate sharing of expertise and knowledge for courses offered online. Udo *et al.* (2011) discovered inter-activity, instructor variables and technical issues as factors which largely influence the level at which students are satisfied by courses offered online. That is, instructor availability and response time, effective communication between the instructor and students, and between students themselves, influence students' perception of e-learning quality. The instructor's interaction with students in the selected courses was a focus of this study.

Masoumi and Lindstrom (2011) point to the challenges relating to assessment of students in e-learning environments, regarding security, identification, accessibility and plagiarism. Systems jams and other technical problems characterise e-learning in the education sector (Agarwal *et al*., 2021). The thuto learning management system has experienced technical problems at NUL recently.

This section highlights that service quality in HE is critical, irrespective of mode of delivering teaching and learning activities. Service quality seems to directly affect student satisfaction, more so that they are best placed to assess it, as they partake in the production, delivery and consumption of lecture services.

2.6 Measuring service quality

In measuring service quality, various tools can be used. SERVQUAL (Parasuraman, Zeithaml & Berry, 1998) tends to be the dominant instrument in measuring service quality nowadays, in various industries and contexts. Dirkse van Schalkwyk and Steenkamp (2020) note that SERVQUAL can facilitate service quality management in a holistic manner.

2.6.1 Measuring service quality in higher education

Studies such as that of Teeroovengadum *et al.* (2016) display consistent attention given to the measurement of quality in HE, as viewed by students, with primary focus being on the teaching and learning dimension. They conclude that this can be compared to soliciting customers' perspectives in other service sectors, on the quality that they receive from business organisations. Marimon *et al*. (2017), however, indicate that, although it is generally agreed that service quality is relevant in HE, agreement on an appropriate measurement instrument remains a challenge. Carmen and Avolio (2020) note that there still exists no universal model in measuring service quality in HE; thus, it is essential to devise instruments, paying

attention to the multidimensional and complex nature of this service. De Jager and Gbadamosi (2010) acknowledge the challenge of identifying and implementing the right measurement instrument for service quality in HE. They further indicate that assessment of education quality can be done using various indicators and strategies, and conclude that appropriate methods and tools of measurement are vital for managers who assess lecturers' performance in terms of service quality. Abbas (2020) corroborates this view by stressing that the main issue in evaluating service quality is to identify and use an appropriate instrument for measurement. For Dirkse van Schalkwyk and Steenkamp (2020), the challenge is the identification of a model or an instrument that will appropriately determine the main definition of service quality, especially in private higher education institutions (PHEIs). Several studies have, therefore, used generic service quality measurement tools to measure service quality in HE, including SERVQUAL.

2.6.1.1 Using SERVQUAL in higher education

In terms of measuring the quality of the HE lecture service (i.e. the teaching and learning or classroom encounter) specifically, which is the focus of this study, limited work exists in the marketing literature. Available studies indicate that SERVQUAL has been useful to evaluate the following: classroom experience quality in six operations management courses at an American university (Stodnick & Rogers, 2008); service quality in an undergraduate engineering design course in Malaysia (Git & Sulaiman, 2012); classroom service quality in an undergraduate management course in the USA and an executive education course in France (Foropon, Seiple & Kerbache, 2013); and the association between service quality in the classroom and student satisfaction, academic engagement and academic performance, in an undergraduate leadership and professional development class (Brown, 2014). Yan, Yan-ping and Jie (2006) state that when evaluating service quality of HE in China, SERVQUAL was conceptually used, having incorporated Strength-Weakness-Opportunity-Threat analysis.

Based on these research findings on using SERVQUAL in HE, the researcher decided to adapt the SERVQUAL model for use at NUL. According to Zeithaml *et al*. (1990), SERVQUAL works by first identifying important service quality dimensions pertaining to a given context; the identification and subsequent modification is normally made from the original five-factor or the three-factor model. That is, given the context, one decides to use either a five-dimensional or a three-dimensional SERVQUAL model, whose constructs are modified to suit the situation.

Parasuraman *et al*. (1988) state that SERVQUAL is used to measure the customer's expectation of a service as compared to the actual service delivered; that is, the comparison (difference) between what the customer expected of a service delivery and the perception during the actual delivery, operationalised as:

Service Quality (Q) = Perception (P) – Expectation (E). i.e. Q = P - E

They indicate that this instrument comprises 22 items, each of which measures both the perception and expectation of a specific service attribute. Chandra *et al.* (2018) identify the following five dimensions of SERVQUAL:

Tangibility: physical facilities and equipment, Appearance of personnel.

Reliability: Being able to accurately and dependably execute the service.

Responsiveness: The degree to which the service provider is willing to help customers, while also instilling trust and confidence.

Empathy: Providing personalised attention and care for customers.

Assurance: Relates to service provider's ability and knowledge that enable a customer to develop confidence and trust in the service provider.

In the context of HE, Misnan *et al.* (2018) identify service attributes in relation to SERVQUAL dimensions as follows:

Tangibility: Appearance of teaching staff, teaching equipment, physical facilities and ambience.

Reliability: The service provider's extent of accurately and dependably performing the service as promised.

Responsiveness: Readiness to promptly assist students by solving their problems.

Assurance: The teaching staff's ability to show courtesy and knowledge, such that students are inspired while they gain confidence in them.

Empathy: Personalised care and attention given to students by the teaching staff.

Of these five dimensions, this study singled out *Tangibility, Responsiveness* and *Empathy*, to conjointly assess their impact on students' perception of the classroom service encounter i.e. in relation to the selected Ps of *people*, *physical evidence* and *process.* The basis for their selection was that these components of SERVQUAL are controllable by a lecturer as a service provider, during students' classroom experience. For example, regarding Tangibles, some physical facilities used during lecturing, (such as laptops, materials and so on) are chosen by a lecturer. For Responsiveness, a lecturer's service delivery in class and prompt responses to students' request entirely lie in the lecturer's ability. For Empathy, a lecturer's ability to observe students' needs while he shows their interest at heart, could also be controlled by a lecturer. That is, the study used Misnan *et al's.* (2018) interpretation of the selected dimensions, which are lecturer-controlled as outlined above.

As the study used this adapted SERVQUAL as the basis for the proposed measurement tool for online lecture service quality at NUL, it aligned itself to the Parasuraman *et al*. (1988) proposition that SERVQUAL measures a gap between customers' (students in the case of this study) expectations and perceptions; this gap being customer (student) expected (lecture) service and their perception of actual (lecture) service. That is, establishing gaps in relation to *interaction between students and the instructor*, Empathy (SERVQUAL); *lecture service production process***,** Responsiveness (SERVQUAL) and *physical evidence,* Tangibles (SERVQUAL).

The lecturer (the researcher) was assessed on a set of ten items in relation to *Empathy* - a lecturer's ability to observe students' needs while he shows their interest at heart. A 4-point Likert-like scale was used.

The second dimension pertinent to this study was *Responsiveness* - a lecturer's prompt responses to students' requests, such as answers to questions and suggestions in an online setting. The lecturer (the researcher) was assessed on a set of thirteen items in relation to *Responsiveness.* A 4-point Likert-like scale was used.

The third dimension was T*angibles,* which in online education refers to advanced equipment, such that all technological devices aiding both teachers and students should be 'advanced'. The lecturer (the researcher) was assessed on a set of thirteen items in relation to T*angibles*. A 4-point Likert-like scale was used.

The study therefore utilised Parasuraman *et al's*. (1988) proposition that SERVQUAL measures a gap between customers' (students in the case of this study) expectations and perceptions; this gap being customer (student) expected (lecture) service and their perception of actual (lecture) service. That is, establishing gaps in relation to *interaction between students and the instructor*, Empathy (SERVQUAL); *lecture service production process***,** Responsiveness (SERVQUAL) and *physical evidence,* Tangibles (SERVQUAL).

Various researchers have used adapted SERVQUAL in the HE context, with some validating its utility and flexibility, while others established its shortfalls in the sector. The SERVQUAL scale is argued to be the main instrument used in marketing and service management literature in assessing service quality (Stodnick & Rogers, 2008). Weerasinghe *et al.* (2017) highlight the popularity of SERVQUAL in that, it is used worldwide for measuring students' level of satisfaction, but note that the factors in the SERVQUAL model must be tailored to accommodate the special characteristics of education services. SERVQUAL is the best measurement instrument for service quality for both education and all other sectors (Ng *et al.*, 2018). Milojevic (2019) argues that, SERVQUAL is utilizable in HE service quality research. In the context of a UK business and management school, SERVQUAL was modified in an action research process investigating Chinese postgraduate students' service quality expectations and perceptions (Barnes, 2007). Given all the above, it seems that SERVQUAL outperforms all other instruments in the HE industry (Cerri, 2012); hence, a modified version was used as the starting point when devising an instrument for assessing lecture service quality perceptions at NUL. Khaola and Thetsane (2021) mention that although NUL recently introduced a SET instrument, its reliability and validity is marred by controversy. They recommend that this instrument should therefore, be supplemented by other indicators of teaching quality such as observation reports and evaluation by peers. The SET instrument at NUL was developed to assess contact teaching quality; thus, it cannot readily be applied to the online setting. Apart from that, it was `developed by the Human Resources Department and the CTL, who are not directly involved in teaching and learning activities, thus, it may have excluded certain elements pertinent to teaching and learning; for example, designing and planning of teaching (Khaola and Thetsane, 2021). Khaola and Thetsane conclude that the SET instrument at NUL does not sufficiently represent the content of an effective teaching domain. This study addressed these shortfalls by soliciting inputs of teaching staff in the Department of Business Administration and students in the selected courses as it developed an instrument specific to the online teaching and learning situation at NUL.

In their research, Dirkse van Schalkwyk and Steenkamp (2014) discovered that credibility and reputation are likely to be maintained by PHEIs as they use extended SERVQUAL in the South African education landscape. Therefore, SERVQUAL seems suitable for both public (including NUL) and private HEIs. They

mention that service gaps and sizes are determined and need for improvement is assessed through SERVQUAL, and some HEIs adapt (improve on) SERVQUAL's application and scope. Thus, NUL could utilise the measurement instrument developed from this study as a starting point and improve on its scope (since this study considered only three dimensions of SERVQUAL) to meet its service quality measurement needs. Tan and Kek (2004: 16) assert that "SERVQUAL gauges the difference between what is expected from a service encounter (teaching and learning) and what is perceived during the actual delivery (lecture service)". They suggest that, as more attention is given to service quality in HE, there should be a matching increase in the usage of tools of assessment of quality. The inclusion of student input in developing a proposed measurement instrument in this study was in an effort to address such concerns and gaps identified in literature. Furthermore, Mokhethi, Malunga and Thetsane (2019) note that although NUL (through their study) contributes to building a consensus regarding service quality dimensions pertaining to the education context, various authors identify various lists of such. This study, however, has brought a different perspective as it considered selected SERVQUAL dimensions (tangibles, responsiveness and empathy – controllable by the instructor) in relation to the selected 3 Ps of the marketing mix (physical evidence, process and people), which are directly controllable by the instructor during online teaching and learning. This contributes to marketing and service management literature specific to education. Furthermore, the study addresses the contextual gap in knowledge as it assessed the impact of these selected dimensions of SERVQUAL and selected Ps, in the classroom encounter, while most studies consider SERVQUAL dimensions institution-wide.

To prove the versatility of SERVQUAL, Arambewela and Hall (2006) used an adapted version to assess the relationship between its constructs (five-factor model) and the satisfaction and country of origin in various universities in Australia, where postgraduate students from Asia were studying. Barnes (2007) modified the SERVQUAL instrument for use in a management and business school in the UK to investigate postgraduate Chinese students' expectations and perceptions and found the tool suitable in that context. In exploring and validating the SERVQUAL instrument for PHEIs in South Africa, Dirkse van Schalkwyk and Steenkamp (2014) concluded that SERVQUAL is an established but underutilised instrument for HEIs. Assessment of quality of HE from parents', employers', faculty members' and students' viewpoints has been done using SERVQUAL, which highlights its versatility (Chua, 2004). Thus, in this study, students', lecturers' and CTL staff members' (representing the employer, NUL) perspectives were solicited to help design the measurement instrument. Atrek and Bayraktatoglu (2012) tested a scale developed specifically to assess service quality in the HE sector against a five-factor SERVQUAL scale, and concluded that SERVQUAL was preferable to the sector-specific scale. As indicated previously, when applied to the classroom environment, SERVQUAL has performed better than traditional scales used for student

assessment (Stodnick & Rogers, 2008). These authors further note that learning and satisfaction as outcome variables related to students, can be explained by this scale, in terms of variances in such variables. SERVQUAL statements can be customised (Tyran and Ross, 2006), according to the conditions under which it is applied. For example, this study singled out three (out of five) dimensions of SERVQUAL; only those dimensions directly relating to teaching and learning, and those over which the instructor can exercise control, were chosen. Stodnick and Rogers (2008) consider SERVQUAL to be a scale that is customer-centric whose application may well extend to the classroom setting. Therefore, a modified version of the SERVQUAL instrument was used to assess students' perceptions of the classroom service encounter at NUL, in relation to the selected courses.

Barnes (2007) discovered that SERVQUAL is useful for exploration of HE service quality. In their study, Ame and Tegambweage (2016) modified the SERVQUAL scale and found that it is reliable and valid for measurement of service quality in the HE sector. The results suggested usage of SERVQUAL with modified items in assessing HE perceived service quality. The authors also established that as long as it is modified to suit a particular context and industry service attributes, SERVQUAL can be applied across various cultures and industries. Thus, this study modified it to suit the HE context in Lesotho. When using adapted SERVQUAL scale in the HE context, Brown and Mazzarol (2009) discovered that perceived quality of processes, people, tangibles and infrastructures of the service had a weak impact on the academic institution's image. In their study, Workei *et al*. (2017) built the measurement of service quality on the five dimensions of service quality (assurance, tangibility, empathy, responsiveness and reliability). This study, however, singled out only three dimensions (responsiveness, empathy and tangibles) in assessing students' perception of lecture service quality at NUL.

Nevertheless, there are challenges associated with the use of SERVQUAL. Gallifa and Batalle (2010) single out expectations as being most criticised, amongst components of SERVQUAL, mainly with regard to interpreting results in expectations. Consequently, they considered another instrument, SERVPERF, which is shown to effectively measure the service provider's performance (Dirkse van Schalkwyk & Steenkamp, 2014). SERVQUAL is unable to create or forecast direction in future although it is valuable (Milojevic, 2019). Such challenges have led to the development of various tools intended to measure the service quality in the context of HE specifically. In Mauritius, Teeroovengadum *et al.* (2016) designed a tool called HESQUAL, with the argument that the complicated nature of HE as a service tends to create difficulty for students in clarifying their expectations in terms of attributes of quality in education. Observing that many existing tools (including SERVQUAL) lack in design, standardisation, reliability and validity, Gruber *et al.* (2010) produced a new measurement tool that assessed most aspects of student life at an academic

institutional level in Germany. Their study concluded that person-environment relationship determines students' satisfaction with their university. Marimon *et al.* (2017) improvised and introduced a holistic-approach scenario whereby a scale, UNIVQUAL, was designed to assess students' perceptions of service quality in HEIs during and after completion of their studies. Despite the identified shortfalls, this study applied the SERVQUAL scale within the online classroom setting.

Ali and Khan (2018) note how frequently SERVQUAL and SERVPERF have been utilised in carrying out research on evaluating service quality in HE. However, Ali *et al.* (2016) applied Higher Education PERFormance (HedPERF) on public universities in the context of Malaysia and conclude that it is inclusive and specific in the HE field. Adedamola, Modupe and Ayodele (2016) used SERVPERF in Nigerian private HEIs (universities) to assess the level at which students are satisfied with the classroom as a facility upon which various disciplines and themes are linked. They emphasise the importance of continuously assessing this facility. This study began to underscore the significance of the classroom experience by developing an instrument to measure it at one HEI in Lesotho, NUL. Due to the difficulty of measuring quality in education, input data is sourced from students as they evaluate lecturers and their instruction (Díaz-Méndez and Gummesson, 2012). These authors conclude that, since there are no clear criteria for students to use in evaluating education as a service, it becomes more difficult for them (students) to assess lecturers' level of knowledge or methods they professionally apply in teaching. This study addressed this challenge by using an action research approach whereby students actively participated as they evaluated the lecturer's knowledge (represented by *people* in the study), professional methods (represented by *process* in the study) and state of technological teaching aids in his control (represented by *physical evidence* in the study).

In measuring service quality in HE, De Jager and Gbadamosi (2010) developed a 52-item measure on a 5-point scale. Thus, several service quality measurement tools have been developed for the HE sector in various contexts; this study proposes one specifically for the classroom service encounter – a narrower (but deeper) scope than most existing institution-wide instruments. Marimon *et al.* (2017) contend that students' university experience quality can be assessed by UnivQual. Abbas (2020) argues that modern aspects of HEI service quality cannot be addressed by SERVQUAL (developed by Parasuraman, Zeithaml and Berry, 1988), HedPERF (developed by Abdullah, 2006b) and SERVPERF (developed by Cronin and Taylor, 1992) due to their general approach to assessing quality. He proposes that modifying and relating an instrument to HEIs is the only way to use it in the academic environment. He thus proposes the Higher Education Institution Service Quality (HEISQUAL) instrument, which is specifically designed for measuring service quality in academia. He argues that besides assessing how students perceive service quality in HEIs, HEISQUAL also considers how students develop both personally and in terms of skills.

He further indicates that HEISQUAL also includes other significant elements of service quality in HEIs, namely; infrastructure and facilities, teachers' profile, extracurricular activities, along with the modern dimensions such as personality development and employment quality, which had not been operationalised in previous research. Mwiya *et al*. (2019) argue that recently, SERVPERF has been developed in an attempt to accurately assess university service quality. Icli and Anil (2014) developed Higher Education Quality (HEDQUAL) exclusively for MBA programmes.

In their measurement instrument, De Jager and Gbadamosi (2010) considered the following variables in the service quality scale: overall satisfaction, trust in management and support and intention to leave the university. They subsequently argued for countries to have specific instruments to suit their contexts. Thus, developing a specific measurement instrument for NUL will not only help NUL administrators in terms of providing guidelines but will also potentially help develop a country-specific tool, having accounted for the Lesotho context. De Jager and Gbadamosi (2010) warn that there exist issues specific to a country, as well as those considered universal, that surface (in the items) when evaluating service quality in HE. Thus, they advise researchers to identify issues pertinent to their circumstances as they measure service quality in different HE contexts. Díaz-Méndez and Gummesson (2012) argue that students' success can also be used to measure lecturers' teaching quality. On the other hand, Raza and Irfan (2018) note that, due to its abstract nature, the quality of teaching in HE can only be measured through students' perceptions – as users. This study solicited students' perceptions of lecture service quality in selected courses. Aurangzeb (2019) asserts that as students display (through responses) levels at which they are satisfied or dissatisfied about the course, their perceptions about the level of quality of education become easy to measure. This is consistent with the focus of this study in which the researcher, being the instructor, attempted to establish students' satisfaction for the selected courses that he offers.

Structural equation modelling was used when Ramirez-Hurtado *et al*. (2021) measured service quality for online education, basing their methodology on an importance-performance analysis. They mention that, in attempting to increase the statistical capability and reinforce the external validity of the study, students in various courses were consulted. Their structured questionnaire included 14 items classified as four latent variables, namely: effectiveness of online teaching, system characteristics, satisfaction with online teaching and relationship with teachers and evaluation. They mention that within the university's virtual platform, different media platforms were used to deliver the questionnaire to the students, with the assistance of teachers. Similarly, in this study, the learning management system, thuto, came in handy in this regard. For virtual instruction service quality to improve, five online teaching attributes have to be prioritised (Ramirez-Hurtado *et al*., 2021). These authors advise that synchrony in terms of working relations between students,

teachers and administrators and re-definition of online format through integration of technological and methodological decisions have to be ensured by universities. They conclude that effective online teaching is highly dependent on how teachers and evaluation relate. In the online platform, updated virtual classrooms are valued most by students (del Carmen & Avolio, 2020).

2.6.1.2 Measuring service quality of online education

Regarding online education service quality measurement, the SERVQUAL model has been used on several occasions. Udo, Bagchi and Kirs (2011) used SERVQUAL in assessing the quality of e-learning service delivery, and discovered that for online learning, 'reliability' includes quality, dependable instructor and reliable feedback from the instructor. These authors replaced 'tangibles' with 'website content' to reflect the online environment when assessing e-learning quality at a main public university in USA, arguing that the course website composes the key medium for e-learning and influences students' perception of quality. They argue that a SERVQUAL-based instrument comprising these dimensions best measures the quality of e-learning, and that traditional learning evaluation models and methods may be inappropriate in the e-learning environment.

Uppal *et al*. (2017) used an extended SERVQUAL model, whereby information and system quality factors were considered in addition to key service constructs. They proposed assurance, empathy, responsiveness, tangibility and reliability as independent variables when the SERVQUAL model was extended to form a quality model in the e-learning environment. They discovered that as students perceive e-learning quality, such perceptions should single out learning content (information), course website (system) and SERVQUAL (service) dimensions.

Agarwal *et al.* (2021) used the SERVQUAL scale in the online classroom environment and established that it outperformed traditional scales used for student assessment. They discovered that, responsiveness, empathy, website content and privacy and reliability, significantly affected students' satisfaction with e-learning quality.

Du *et al.* (2018) used a modified SERVPERF evaluation method as they evaluated service performance for online education. They considered the following as the main aspects: service resources, service performance, service process, basic requirements, and characteristic innovation. Amongst these, of significance to this study is service process, which includes "*advertising and enrolment consultation, purchase service and registration, content and support services, students support services and academic*

achievement assessment (Du *et al*., 2018:44)". The instructor can exercise some degree of control over such aspects as content and academic achievement assessment. For these authors (Du *et al*.), *tangibles* in online education constitutes advanced equipment (such as technological devices aiding both teachers and students). This study gathered NUL students' views in this regard.

The impact of performance of remote instructors on undergraduate students' service quality perceptions was determined by the Business School at Lebanon International University (LIU) through an adapted SERVQUAL tool with responsiveness, empathy, tangibles, reliability and assurance factors (Aoun & Amine, 2021). They (Aoun & Amine) mention that use of Google classroom by LIU facilitated interaction with students to upload materials, deliver sessions online and assess students, while also enabling utilisation of an online questionnaire using Google Forms.

Rotta, Usaga and Clarijo (2020) assert that the 'tangible' dimension corresponds to the *user interface* characteristics which include screen sharing, video playback, student-teacher forum, self-evaluations and recorded lessons.

In evaluating online learning, Gunawardena (2001) notes that developing appropriate methodologies and tools remain a critical challenge in Mexico. This provided motivation for this study to develop a measurement tool, specific to measuring service quality within the classroom environment, in the context of online learning.

Schijns (2021) notes a growing necessity to practically evaluate online HE service quality and suggests online surveys for collecting data from students. This study utilised a questionnaire administered online, among other methods, to solicit students' views on online lecture service quality offered by NUL (in selected courses).

From the foregoing discussion, there seems to be a bias towards quantitative measures of service quality in the context of the classroom encounter in the marketing literature (Douglas, McClelland & Davies, 2008), which this study addressed through placing greater emphasis on qualitative exploration of lecture service quality. While the marketing literature does contain many studies of service quality in the HE context, this study differs from existing studies in relation to its adoption of a mixed-methods action research methodology (whereas other studies tend to undertake quantitative surveys using one of the instruments referred to above). Abukari and Abubaka (2018) note that there is insufficient literature on the evidence on how teachers use research to inform their teaching. This study addressed this problem by conducting action

research whereby students in the selected courses that the researcher offers assessed his teaching practice. These authors (Abukari and Abukar, 2018) claim that action research in the teaching context is powerful and viable in enhancing the teacher's effectiveness, mainly because the teacher better knows his classroom and students, and hence is better placed to conduct the research relevant to inform his/her practice.

The researcher concludes that in both modes of teaching and learning (contact and online), there generally exists no common consensus on how service quality in the HE context is measured. This is supported by Schijns' (2021) discovery that no universally-accepted measure exists in this regard.

Table 2.1 summarises the tools/instruments/models that researchers have used to evaluate service quality in the HE context.

Table 2.1 Tools/instruments/models used to evaluate service quality in HE

Author and year	**Tool/instrument/model**	**Findings**
Bagur-Femenias, Llach and Buil (2023)	Business School Quality (BS-QUAL)	Physical environment (and conditions, in the online context) for teaching and learning, satisfies the student.
Stodnick & Rogers, 2008	SERVQUAL	- SERVQUAL is the main instrument utilised in marketing and service management literature in assessing service quality - When applied to the classroom environment, SERVQUAL has performed better than traditional scales used for student assessment - SERVQUAL is a customer-centric scale whose application may well extend to the classroom setting
Misnan *et al.* (2018)	SERVQUAL	Service attributes in relation to SERVQUAL dimensions are: Tangibility (appearance of teaching staff, teaching equipment, physical facilities and ambience); Reliability (the service provider's extent of accurately and dependably performing the service as promised); Responsiveness (readiness to promptly assist students by solving their problems); Assurance (the teaching staff's ability to show courtesy and knowledge, such that students are inspired while they gain confidence in them); Empathy (personalised care and attention given to students by the teaching staff).

Weerasinghe *et al.* (2017)	SERVQUAL	Factors in the SERVQUAL model must be tailored to accommodate the special characteristics of education services
Ng *et al.*, 2018	SERVQUAL	SERVQUAL is the best measurement instrument for service quality in education and all other sectors
Milojevic (2019)	SERVQUAL	SERVQUAL is suitable in conducting research on HE service quality
Barnes, 2007	SERVQUAL	SERVQUAL is suitable for measuring postgraduate Chinese students' expectations and perceptions
Cerri, 2012	SERVQUAL	SERVQUAL outperforms all other instruments in the HE sector
Khaola and Thetsane (2021)	SET	The SET instrument at NUL does not sufficiently represent the content of an effective teaching domain
Dirkse Van Schalkwyk and Steenkamp (2014)	SERVQUAL	- Credibility and reputation are likely to be maintained by PHEIs as they use extended SERVQUAL in the South African education landscape - SERVQUAL seems suitable for both public and private HEIs - Service gaps and sizes are determined and need for improvement is assessed through SERVQUAL - SERVQUAL is an established but underutilised instrument for HEIs
Tan and Kek (2004)	SERVQUAL	SERVQUAL gauges the difference between what is expected from a service encounter (teaching and learning) and what is perceived during the actual delivery (lecture service)
Chua, 2004	SERVQUAL	SERVQUAL can be used to assess the quality of HE from parents', employers', faculty members' and students' viewpoints
Atrek and Bayraktatoglu (2012)	SERVQUAL	SERVQUAL is preferable to a scale specific to the sector; i.e. adapted three-factor SERVQUAL for higher education
Tyran and Ross, 2006	SERVQUAL	SERVQUAL statements can be customised according to the conditions under which it is applied
Barnes (2007)	SERVQUAL	SERVQUAL IS useful for exploration of HE service quality

Ame and Tegambweage (2016)	SERVQUAL	- A modified SERVQUAL is valid and reliable in measuring HE service quality - As long as it is modified to suit a particular context and industry service attributes, SERVQUAL can be applied across various cultures and industries
Brown and Mazzarol (2009)	SERVQUAL	When using an adapted SERVQUAL scale in the HE context, perceived quality of processes, people, tangibles and infrastructures of the service had a weak impact on the academic institution's image.
Workei *et al*. (2017)	SERVQUAL	Based the measurement of service quality on the five service quality dimensions (reliability, tangibility, responsiveness, empathy and assurance).
Gallifa and Batalle (2010)	SERVPERF	- Single out expectations as being most criticised, amongst components of SERVQUAL, mainly with regard to interpreting results in expectations - SERVPERF effectively measures the service provider's performance
Teeroovengadum *et al.* (2016)	HESQUAL	The complicated nature of HE as a service tends to create difficulty for students in clarifying their expectations in terms of attributes of quality in education
Marimon *et al.* (2017)	UNIVQUAL	Suitable to evaluate students' HEIs's service quality perceptions during and after completion of their studies
Ali and Khan (2018)	SERVQUAL and SERVPERF	Studies in the tertiary education sector have utilised these two instruments mainly to evaluate service quality
Ali *et al.* (2016)	HedPERF	HedPERF is more specific and inclusive with respect to the field of HE
Adedamola, Modupe and Ayodele (2016)	SERVPERF	SERVPERF is suitable to evaluate the level of student satisfaction with the classroom as a facility upon which various disciplines and themes are linked
Abbas (2020)	HEISQUAL	- Is specifically designed for measuring service quality in academia - Besides assessing how students perceive service quality in HEIs, it also considers how students develop both personally and in terms of skills - Includes other significant elements of service quality in HEIs, namely; infrastructure and facilities, teachers' profile, extracurricular activities, along with the modern dimensions such as personality development and employment quality

Mwiya *et al*. (2019)	SERVPERF	Accurately assesses university service quality
Icli and Anil (2014)	HEDQUAL	Exclusively measures quality for MBA programmes
Ramirez-Hurtado *et al*. (2021)	Structural equation modelling	Measures service quality for online education, basing their methodology on an importance-performance analysis.
Udo, Bagchi and Kirs (2011)	SERVQUAL	- For online learning, 'reliability' involves quality, dependable instructor and how reliable the feedback from the instructor is. - SERVQUAL-based instrument comprising these dimensions (above) best measures the quality of e-learning - Inappropriateness of traditional leaning elation models and methods in the e-learning setting
Uppal *et al*. (2017)	SERVQUAL	As students perceive e-learning quality, such perceptions should single out learning content (information), course website (system) and SERVQUAL (service) dimensions.
Agarwal *et al.* (2021)	SERVQUAL	- Used SERVQUAL scale in the online classroom environment and established that it outperformed traditional scales used for student assessment. - Reliability, responsiveness, empathy, website content and privacy significantly affected students' satisfaction with e-learning quality.
Du *et al.* (2018)	SERVPERF	Evaluated service performance for online education and concluded that the following are the main aspects: service resources, service performance, service process, basic requirements, and characteristic innovation
Aoun & Amine, 2021).	SERVQUAL	Remote instructors' performance is best measured through an adapted SERVQUAL tool with responsiveness, empathy, tangibles, reliability and assurance factors

Source: Author

Although Adedamola, Modupe and Ayodele (2016) argue that SERVPERF is suitable to evaluate the student satisfaction level with the classroom as a facility upon which various disciplines and themes are linked, Mwiya *et al*. (2019) argue that recently SERVPERF has been developed in attempt to accurately assess university service quality. Thus, SERVPERF was found unsuitable for this study, which focused specifically on classroom experience and not university-wide service quality. In terms of measuring the

service quality of the classroom experience, it can be seen from Table 2.1 that SERVQUAL was the only instrument which was used specifically to measure classroom experience. It was used for this purpose by Stodnick and Rogers (2008) and Agarwal *et al.* (2021). Stodnick and Rogers (2008) concluded that, when applied to the classroom environment, SERVQUAL performed better than traditional scales used for student assessment. Agarwal *et al.* (2021) also established that SERVQUAL outperformed traditional student assessment scales. It is on this basis that this study ignored all other instruments outlined above and chose to use an adapted SERVQUAL model as being best suited for measurement of the online classroom experience.

2.7 Conceptual framework

The study adopted the 7 Ps model, with emphasis on three selected Ps (i.e. physical evidence, people and process) that were considered to be under the influence/control of lecturers in the context of the online classroom experience. It also drew on selected dimensions (i.e. tangibles, responsiveness and empathy) from the SERVQUAL tool that relate to these three Ps.

Figure 2.1 portrays the conceptual framework.

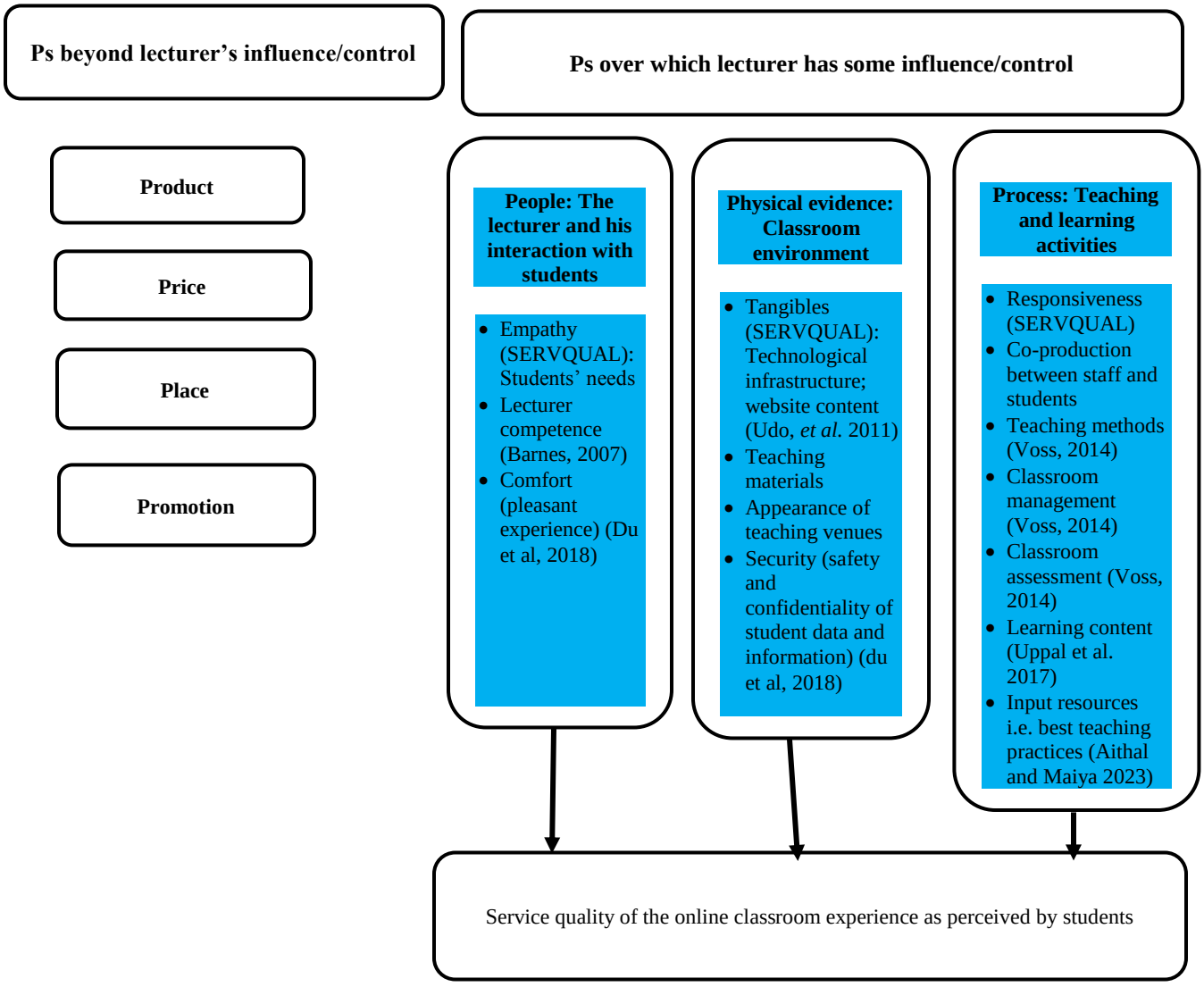

Figure 2.1: Conceptual framework

Source: Author

As indicated in Section 2.4, individual lecturers typically do not have control over the following four marketing mix decisions, which are generally made at institutional level. For this reason, and because these Ps are not directly pertinent to the online classroom experience specifically, they were not focused on in this study.

- *Product:* The various degree programmes attained upon completion of tuition.
- *Price:* Programme fees charged by NUL upon students' enrolment and subsequent tutelage.

- *Place:* Where/how NUL provides tuition to registered students.

- *Promotion:* All activities, tools and mechanisms the university uses to provide information about its programmes.

By contrast, lecturers typically do have some influence or control over the following three marketing mix decisions, which are also of relevance in the context of the online classroom experience. As such, these three Ps formed the focus of the study.

- *People:* This element includes both academic and non-academic staff of the university, with whom students interact. The focus of this study was on academic staff, mainly because of their role in the classroom service encounter. Individual lecturers exercise control as they interact with students, hence inclusion of this P under the lecturer-controlled variables.

- *Physical evidence:* This relates to all readily visible elements such as the appearance of lecture theatres and teaching materials aiding delivery of the lecture service to students. Individual lecturers have control on most teaching aids, hence the P being included under the lecturer-controlled variables.

- *Process:* This specifies the process of service production whereby NUL teaching staff and students co-act to produce a desired outcome. The process of lecture service production is entirely under the control of a lecturer, hence the inclusion of this P under the lecturer-controlled variables.

As indicated previously, the three selected Ps above are aligned to the following three SERVQUAL dimensions:

- *Empathy*: The lecturer's ability to observe students' needs while also showing their interest at heart. That is, as the lecturer interacts with students, he/she is likely to display ability to observe their needs, as well as having students' interests at heart, hence the inclusion of this dimension under *people* in the conceptual framework. This is also controllable to the lecturer.

- *Tangibles:* This relates to the appearance of teaching staff, teaching equipment, physical facilities and ambience. This appears under *physical evidence* since these are aspects which are readily visible to students, for example, physical facilities such as technological infrastructure used for teaching and learning. The lecturer can exercise control on such teaching aids as WhatsApp groups

established to share course-related materials, hence the inclusion of this dimension under the lecturer-controlled variables.

- *Responsiveness:* This relates to a lecturer's prompt responses to students' requests, such as answers to questions and suggestions in an online setting. This affects the process of lecture service production, delivery and consumption by students. The lecturer can exercise control on these activities, hence the inclusion of the P under the lecturer-controlled variables. Barnes (2007) notes the importance of the teacher's competence, which he argues may help explain how students perceive quality. This is represented by *process* in the conceptual framework. Thus, the instructor's (the researcher's) ability to deliver high quality lecture service on the selected courses may help students form perceptions of such quality.

Based on the interpretation of Du *et al.* (2018) of what comprises online education service performance evaluation, as far as students' perception is concerned, the following elements manifested: *comfort* and *security.* According to Du *et al.* (2018: 22), "*comfort* refers to the ability of organisations to create a pleasant experience for customers (students) while *security* relates to the fact that in the process of online education service, the confidentiality and safety of customers' (students') data and information, personal property, as well as the security of service facilities and service contents is of paramount importance". It is noted that these two elements are under the direct influence of the instructor, and hence feature in the conceptual framework (under the controllable factors).

Voss (2014) singles out five important themes that enable creation and optimisation of teaching-learning situations: teaching methods, classroom management, classroom assessment, learning processes and individual characteristics. He classifies the first three under classroom processes, while the latter two are classified under students' heterogeneity. Teaching methods and classroom management are represented by *process* in the conceptual framework.

Tijjang *et al.* (2017) examined the relevance of the marketing mix to HE students' decision-making about the service quality provided and their satisfaction level. They discovered that the marketing mix plays a mediating role in students' decision-making regarding satisfaction. Pertaining to this study, such marketing mix elements for services as people, physical evidence and process might be mediating between expectations and perceptions of students' lecture services at NUL, hence the focus on these selected elements of the 7 Ps marketing mix model in the conceptual framework. The suitability of this model lies in that collectively, these 7 Ps do interact in order to deliver a total solution to a customer – a student in the case of this study. That is, even though the focus was on the three Ps (highlighted in blue in Figure 2.1)

with respect to their impact on the service quality of the classroom experience, the other Ps also have a stake. For example, unlike in a business organisation, product at a HEI might be debated to refer to programmes offered while some people may argue that students become products upon graduating (readily salable to employers as customers) (Ivy, 2008).

2.8 How the study adapted questions in the questionnaire, in relation to the conceptual framework

As highlighted in the previous section on the conceptual framework, the three Ps singled out from the 7Ps model and the three selected dimensions of the SERVQUAL model are both considered to be pertinent to online teaching and learning and controllable by the instructor. The questions used in the questionnaire were therefore based on these selected Ps/dimensions only and drafted with regard to the following main areas:

- People: The lecturer, with SERVQUAL's *empathy* dimension.
- Lecture service production process: Teaching and learning activities, with SERVQUAL's *responsiveness* dimension.
- Physical evidence: Classroom environment, with SERVQUAL's *Tangibles* dimension.

These are detailed below.

People: The lecturer

- Interaction with students

Empathy: The lecturer

- Ability to observe students' needs while showing their interest at heart

Lecture service production process: Teaching and learning activities

Responsiveness: The lecturer

- Lecturer's quick response to questions and suggestions online

Physical evidence: Classroom environment

Tangibles: Technological infrastructure

When formulating relevant questions, the researcher drew on and adapted various researchers' models and interpretations of the above constructs as follows:

People: The lecturer

- Anane-Donkor and Dei's (2021) assertion that *people* in HE refers to staff and faculty, such that in their study of marketing mix and students' enrolment, *people* influences students' enrolment decision.
- Bagur-Femenias, Llach and Buil's (2023) consideration of the influence of academic staff on students' perceived service quality.

This study singled out the researcher as the academic staff, represented by *People* in the conceptual framework, as the focus of the study.

People: The lecturer - *Interaction with students*

- Martin and Bolliger's (2022) consideration of *Engagement* referring to lecturer's interaction with students.
- La Rotta, Usaga and Clavijo's (2018: 258) assertion that "teachers manage to develop student interest in the subject"

This study considered interaction between the lecturer and students in the selected courses, during lecture service production, delivery and consumption.

In relation to the lecturer's interaction with students, the study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Course information dissemination*: based on the assertion by Amoako *et al.* (2023: 5) that "it involves all activities concerning teaching and learning as well as areas concerning the experience of students"
- *Knowledge of subject matter:* based on Bagur-Femenias, Llach and Buil's (2023: 11) 'knowledge transfer'. Also based on Aoun and Amine's (2021:8) assertion that "instructors are competent and possess the required skills and knowledge".
- *Communication skills:* based on del Carmen and Avolio's (2020: 226) assertion that "professors effectively transmit knowledge", as well as Rozak *et al's*. (2022: 11) assertion that "the academic staff of the university has good communication skills".

- *Helpfulness of feedback:* based on Rozak et *al's* (2022: 6) 'quality assessment – feedback'. Also draws on Kevin, Fangpong and Keerati's (2021: 366) assertion that "the faculty value and acknowledge feedback from students for improving processes".
- *Contribution to students' attitudes, professional and social skills:* based on Bagur-Femenias, Llach and Buil's (2023) assertion that skills developed by students impact on how they perceive service quality. Also based on del Carmen and Avolio's (2020: 226) assertion that "extra-curricular activities organised by professors involve bringing industry experts to talk about their experiences".
- *Having well-publicised convenient online contact hours:* based on Misnan, Zakaria and Salleh's (2018: 490) assertion that "the instructor creates convenience in communicating outside lecture hours"; Rozak et *al's* (2022: 12) assertion that "all the information regarding the essential activities and news are timely provided to the students"; Agarwal, Verma and Maholtra's (2021:9) assertion that "the university has convenient office operating hours"; Aboubakr and Bayoumy's (2022: 651) assertion that "instructors should show preparedness for responding convenient working hours"; Alhazmi's (2022:14) assertion that "the instructor should display convenient operating hours".

Empathy: The lecturer

- Khan, Siddigi and Rais's (2021) assertion that "empathy translates to a teacher recognising the feelings, emotions and areas of concern of students".
- Goumairi, Aoula and Souda's (2020: 226) assertion that "empathy relates to understanding the needs of students and having a positive attitude towards them".
- Rozak et *al's* (2022: 13) assertion that "the academic staff conducts business in the best interest of the students".
- Agarwal, Verma and Maholtra's (2021:9) assertion that "individual student is given attention during online classes"
- Aboubakr and Bayoumy's (2022: 651) assertion that "empathy is personal attention to students".

Based on the above, this study took empathy to refer to ability to observe students' needs and to have their best interest at heart.

In relation to the lecturer's empathy, this study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Provision of mentoring, caring and individualised attention to students:* based on Misnan, Zakaria and Salleh's (2018: 490) assertion that "empathy is caring individualised attention the teaching staff provides to the students"; Lijun and Yin's (2021) assertion that "empathy means the care and

consideration given to the students"; Margolis and Providencia's (2021: 34) assertion that "empathy refers to the teacher's understanding of students' specific needs".

- *Taking interest in students' academic progress:* based on Aoun and Amine's (2021:8) assertion that "instructors keep accurate records about students' progress"; Goumairi, Aoula and Souda's (2020: 226) assertion that "teachers involve students for process improvement"; Khan, Siddigi and Rais's (2021: 133) assertion that "for creating empathic connection, teachers do work with their students".
- *Exerting effort to help students grow professional and social skills and attitudes:* based on Goumairi, Aoula and Souda's (2020: 226) assertion that "teachers display respect, professionalism and kindness in communicating with students".

Lecture service production process: Teaching and learning activities

Based on Anane-Donkor and Dei (2021)'s definition *of Lecture service production process* in relation to teaching and learning activities that it is a set of procedures followed for lecture delivery, this study considered the lecture service production process as involving co-action, whereby the lecturer and students partake in the production, delivery and consumption of lecture services, hence procedures in the teaching and learning activities.

In relation to the lecture service production process, this study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Clear instructions to students:* based on Aboubakr and Bayoumy's (2022: 651) assertion that "lecturers provide required information to learners".
- *Effective discussions and/or questions:* based on Aboubakr and Bayoumy's (2022: 651) assertion that "teachers have knowledge necessary to provide education services".
- *Fairness during grading:* based on Rozak *et al's* (2022: 6) assertion that "grading involves assessment system efficiency and transparent examination procedure".
- *Relevant solutions to class-related problems:* based on Alfy and Abukari's (2019: 13) assertion that "staff is very informative and helpful".
- *Accurate information on events, meetings, timetable, assignments and examination results, about the course:* based on Aboubakr and Bayoumy's (2022: 651) assertion that "instructors create a peaceful environment and convenient working hours for students"; Kevin, Fangpong and Keerati's (2021: 366) assertion that "students are informed about the realisation of certain activities (exams or seminars) in a timely manner"; Aoun and Amine's (2021:8) assertion that "instructor ensures that course schedules and syllabi are detailed"; Rozak et *al's* (2022: 13) assertion that "academic

staff maintains a record of the activities and the processes of the students (attendance in the scheduled lectures, results, scores, grades, etc)".

- *Complementing theoretical explanations with illustrative examples, cases and exercise:* based on Margolis and Providencia's (2021: 35) assertion that "teachers balance theory and practice in the classroom"; del Carmen and Avolio's (2020: 226) assertion that "professors facilitate enough practical exercises".
- *Creation of knowledge through course structure and suitable instructional methodology:* based on Surman's (2022) assertion that "the lecturer's role is to transfer knowledge to students"; Margolis and Providencia's (2021: 34) assertion that "teachers have mastery of the subjects dealt with"; Martin and Bolliger's (2022) consideration of learning strategies as referring to self-directed learning, study behavior and time spent online per week, among others; Martin and Bolliger's (2022) consideration of instructor facilitation as referring to teaching process and teaching quality, among others.
- *Course content meeting students' expectations:* based on Dorand's (2021:7) assertion that "Teams allows the teacher to provide accessible materials and the teacher to present his PowerPoint presentation"; Chandra, Ng and Priyono's (2018: 221) assertion that "course content develops students' knowledge"; Aurangzeb's (2019) assertion that "course content and organisation determines teaching and learning quality in HE".

Responsiveness: The lecturer

- Amoako *et al's* (2023: 5) assertion that responsiveness is a service quality dimension that falls under academic service in HE.
- Rozak et *al's* (2022: 13) assertion that "the academic staff efficiently and promptly handle and address the queries, complaints, request, and issues of the students".
- Goumairi, Aoula and Souda's (2020: 226) assertion that "academic staff put deadlines for processing requests".

Based on the above, this study considered responsiveness as the lecturer's quick response to students' requests, questions and suggestions.

In relation to *Responsiveness*, this study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Timely, efficient and professional responses to students' needs and inquires:* based on Misnan, Zakaria and Salleh's (2018: 490) assertion that "responsiveness shows lecturer's willingness to

help students and provide prompt service in terms of solving the student's problem"; Aboubakr and Bayoumy's (2022: 651) assertion that "lecturers show interest in solving learners' problems"; Kevin, Fangpong and Keerati's (2021: 366) assertion that "inquiries, request, and claims of students are handled and resolved promptly".

- *Means (mechanisms) in place for students to complain and reflect their views about the lecture service:* based on Martin and Bolliger's (2022) consideration of learner characteristics, which include learner anxiety.
- *Amount of contact with students during online lectures, tutorials and consultations:* based on Alhazmi's (2022:15) assertion that "academic staff provide services at appointment time"; Misnan, Zakaria and Salleh's (2018: 490) assertion that "responsiveness relates to lecturer's pace of teaching".

Physical evidence: Classroom environment

- Anane-Donkor and Dei's (2021) assertion that *physical evidence* in HE refers to facilities/infrastructure.
- Rozak *et al's* (2022: 13) assertion that "physical evidence relates to digital infrastructure".
- Amoako *et al's* (2023: 7) assertion that "classroom environment refers to classroom design".

Based on the above, this study considered *physical evidence* as all readily visible elements, such as the appearance of lecture theatres and teaching materials aiding delivery of the lecture service to students.

In relation to the Physical evidence: Classroom environment, this study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Availability of core-reading lists:* based on del Carmen and Avolio's (2020: 226) assertion that "there should be constant availability of books".
- *Up-to-date course content:* Aoun and Amine's (2021:8) assertion that "instructors are assertive in controlling online sessions"; Martin and Bolliger's (2022) consideration of instructional design, which includes course structure and clarity.
- *Appropriate spreading of course content and workload and sequence of topics:* based on Aurangzeb's (2019) assertion that "course content and organisation determines teaching and learning quality in HE"; Martin and Bolliger's (2022) consideration that course delivery includes length of course and course modality; Alfy and Abukari's (2019: 13) assertion that "modules are well structured".
- *Teaching material aiding lecture delivery:* based on Margolis and Providencia's (2021: 34) assertion that "physical facilities are visually appealing"; Kevin, Fangpong and Keerati's (2021:

366) assertion that "teaching material are available and up-to-date (study programs, brochures, student guides)"; Martin and Bolliger's (2022) consideration of course technologies as including e-learning tools and resources; Dorand's (2021:7) assertion that "the teacher provides e-learning sources".

- *Adequate preparation and presentation of lecture material:* based on Aoun and Amine's (2021:8) assertion that "PowerPoints are well prepared"; Dorand's (2021:7) assertion that "the teacher presentations are visually appealing".
- *Handouts adequate for assignments and projects:* based on del Carmen and Avolio's (2020: 227) assertion that "library services include extended book-loan periods".
- *Fairness of grading by the lecturer:* based on Rozak et *al's* (2022: 6) assertion that "quality assessment includes assessment system efficiency".
- *Feedback helping student improve:* based on Rozak et *al's* (2022: 6) that "student wellbeing includes helpful feedback".

Physical evidence: Tangibles

- Aoun and Amine's (2021:8) assertion that "tangibles include adequate technological resources (projector, computer, etc)".
- Dorand's (2021:7) assertion that "the teacher uses modern-looking teaching tools".
- Goumairi, Aoula and Souda's (2020: 226) assertion that "tangibles refer to school buildings and infrastructure".
- La Rotta, Usaga and Clavijo's (2018: 258) assertion that "tangibles refers to user interface such that the academic platform should have various tools that facilitate the learning process; for example, student-teacher forums, self-assessments, recorded lessons, among others".
- Khan, Siddigi and Rais's (2021:134) assertion that "tangibles deals with physical appearance of facilities in education sector".

Based on the above, this study considered *tangibles* as referring to the appearance of teaching staff, teaching equipment, physical facilities and ambience.

In relation to the Physical evidence: Tangibles, this study formulated questions around the following aspects (these questions are detailed in the student survey questionnaire in Appendix B):

- *Quality of lecture equipment:* based on Rozak *et al's* (2022: 11) assertion that "digital infrastructure includes teaching and assessment tools"; Aboubakr and Bayoumy's (2022: 651) assertion that "tangibles refers to educational equipment"; Misnan, Zakaria and Salleh's (2018:

490) assertion that tangibility concerns condition and ambience of rooms and equipment; Martin and Bolliger's (2022) consideration of course quality as including course material and technology quality; Lijun and Yin's (2021: 13) assertion that "tangibles' refers to physical facilities, tools and equipment for practical online teaching and learning".

- *Quality of communication tools:* based on Lijun and Yin's (2021:14) assertion that "tangibles relates to fluency of teaching network" and "the clear conditions of the physical facilities and equipment and availability of the communication material"; Martin and Bolliger's (2022) consideration of course technologies referring to information technical support programme; Dorand's (2021:7) assertion that "tangibles' concerns online learning that provides speaking/presentation practice".

2.9 Conclusion

The chapter has established that there are limited studies on perceptions of service quality in the classroom encounter context, particularly in developing countries in Africa. The chapter also reveals that many HEIs acknowledge the importance of service quality. This is evident in the development of various tools/instruments/models and attempts to measure service quality. The challenges, though, are firstly, to agree on the 'best' definition of service in the HE context, and secondly, to agree on a universal model/instrument/tool to measure it. These challenges remain unresolved to date.

The chapter has discovered that, while many HEIs offer programmes online, both the success of this mode and the quality of programmes and/or courses offered under this mode are a concern. Under this mode, a universally-accepted model or instrument/tool/model remains a debate.

For NUL, no previous studies were found, in relation to measuring online lecture service quality; SET was purely designed for contact teaching. Thus, while the institution continues to run online teaching and learning, the quality of lecture services cannot readily be assessed, due to the unavailability of an appropriate measurement instrument/tool. The next chapter provides details of the methodology used in addressing this problem.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter details specific activities or issues related to the methodology adopted in the study. It covers aspects such as the research design (action research case study), approach (mixed methods) and the study site (NUL's main campus). The target population (fourth-year students in the selected courses, BCom Association members, DBA lecturers and CTL staff) is described and the sampling strategy (purposive) is explained. The methods used for data collection and analysis are outlined. Data quality measures and ethical considerations are also covered.

3.2 Philosophical underpinnings of the study

The study adopted the pragmatism paradigm which, according to Parvaiz, Mufti and Wahab (2016: 9), "links directly to the purpose and the nature of the research problem which is being investigated". That is, this paradigm focuses more on the research problem under study and the types of questions asked (Singh, 2019). The research problem addressed in this study related to the lack of an appropriate measure of online lecture service quality at NUL, which impedes NUL from consistently and systematically monitoring online lecture service quality. According to Parvaiz *et al.* (2016), the adopted data collection methods (interviews, questionnaire, and observation and document analysis in this study) and analytical methods (descriptive, document and thematic analysis in this study) are most likely to provide a deep insight into the research problem. That is, these data collection methods and data analysis methods employed in the study provided rich information regarding the culture of a lack of measuring lecture service quality at NUL.

Mc Manus, Mulhall and Ragab (2017: 23) assert that "the pragmatism worldview, focusing on 'what works', is generally associated with the mixed-methods methodology, thereby considering theory and practice". This study used a mixed-methods approach whereby theories underpinning students' perceptions of service quality were explored, while their actual perceptions were assessed through a survey and focus group discussions.

Parvaiz et *al*. (2016: 17) posit that "for pragmatists, values play an important role in conducting research and interpreting results and the researcher accepts external reality and chooses explanations that best produce the desired outcome". That is, the researcher in this study held values that, although he is currently teaching the students who are assessing him, the student-teacher relationship would remain intact throughout the duration of the project, while accepting the reality that students might feel uncomfortable

rating him. The researcher therefore engaged a fieldworker to ease students' participation in the study. Parviaz et *al.* (2016) explain that a pragmatist believes that there exists 'real world' out there, and individuals uniquely interpret that world. Thus, pragmatists do not rely on complete subjectivity. That is, for this study, the researcher believed that students and staff involved in the research hold their own understanding of the context of the research. The researcher thus, had a limited subjectivity when interpreting their responses to posed questions.

Kaushik and Walsh (2019) mention that pragmatism embraces plurality of methods and is related to mixed methods, with the focus being on the consequences of the research and on the research questions and not necessarily on the methods. That is, this study considered ultimate improvement of the teaching practice of the researcher, and improvement in the learning activities by participants (particularly students in the selected courses).

According to Kaushik and Walsh (2019), human actions cannot be separated from their past experiences and from the beliefs that have emanated from those experiences. They argue that human thoughts are intrinsically linked to action. That is, people engage in a certain action, having considered consequences of such the action; they then use results from such the action to calculate the consequences of similar actions in the future. Based on this argument, lecturers at NUL will perform *ad hoc* lecture service quality evaluation, knowing quite well that students may rate them favourably or unfavourably. Such lecturers may base themselves on the results of the previous evaluation to conduct the next evaluation exercise (particularly when it was favourable) to achieve such personal goals as applying for promotion or affiliation to a certain academic body.

Kaushik and Walsh (2019:11) assert that "pragmatist philosophy strongly believes that the meaning of human actions and beliefs is found in their consequences, such that external forces do not impact humans, but humans use actions and intelligence to shape their experiences". That is, students in the study engage in specific actions during online teaching and learning, such that they ultimately attain desirable university experience. For example, they access free online courses that boost their academic performance. All in all, the authors take pragmatism as a belief that the world can be changed through actions. Thus, the study used action research in an attempt to change the academic world of both the teaching staff (in the DBA) and the students in the selected courses, especially by implementing interventions to enhance teaching and learning experiences.

When pointing out philosophical underpinnings of pragmatism, Kaushki and Walsh (2019) advocate that knowledge is best based on experience, such that perceptions of the world are largely influenced by social experiences. They further indicate that one's knowledge is uniquely created by his/her unique experiences. That is, the researcher's knowledge of lecture service quality at NUL is purely based on his personal experience as a lecturer at the institution.

Newton, Da Silva and Berry (2020: 4) define pragmatism as "a philosophy, research paradigm and an approach to practice, focused on attempting to identify what is practically useful". These authors assert that pragmatism emphasises usefulness and practical outcomes. Thus, in this study, pragmatism attempted to identify what is useful to CTL staff, teaching staff (in the DBA) and the students, as far as teaching and learning at NUL is involved; for example, for CTL, what hinders consistent and systematic evaluation of lecture services, and for lecturers, the assessment of teaching quality, for students to assess lecture service quality and its providers (lecturers) so that their (students') expectations are met.

Newton *et al*. (2020) conclude that pragmatic approaches can be extended and assist educators and policy-makers use existing education research evidence as they make decisions in their local contexts. That is, NUL policy-makers may utilise the findings of this study in drafting an online teaching quality policy.

Pratt, Schmidt, Avant, Cochran, Jackson, Farrell, Knight and Hellmann (2021) suggest that pragmatist epistemology consists of inquiry whereby knowledge is sought and means of improving it are devised. That is, this study inquired into a lack of a culture of measuring lecture quality at NUL, with the intention of recommending a measurement tool and improving lecture service quality.

3.3 Insider research

Aburn, Gott and Hoare (2021:31) define insider research as "a situation whereby a researcher personally knows participants in a variety of settings". This was applicable in this study as the researcher interviewed colleagues from CTL and his own department (DBA), as well as his own students in the selected courses that he offered. This is mainly because the study's location was his workplace, NUL's main campus at Roma.

Aburn *et al*. (2021) single out power differentials in relationships with participants, the risk of assumed understanding and the researcher's management of emotional burden as challenges associated with being an insider researcher. They however, identify the greatest benefit as being the researcher rapidly developing

rapport with participants, to the extent that occasionally, participation may be felt by participants as a therapeutic process.

Concerning the benefits, the researcher enjoyed that of participants understanding the context of the study in the following ways: for CTL staff, they were already appreciating that there is a culture of a lack of measuring lecture service quality on a consistent and systematic basis. They were thus eager to assist a process leading to elimination of such a culture. Their views were thus skewed towards lecturers' undermining of the process of teaching quality evaluation and also lack of enforcement of the teaching and learning policy at NUL, by the university authorities. Their readiness to address these challenges through the outcome of this study facilitated their participation. Their participation also, was enhanced by their trust in me, being the person on the ground, as far as online teaching and learning is involved. The interview seemed to provide a therapy to them over a litany of dissatisfactions on lecturers' extent of carrying out lecture service evaluation (uncontrollably through ad hoc practices). They pinned their hopes on the study that it will signify the importance of the exercise.

The disadvantage experienced by the researcher with the CTL staff is that of power differentials that they seemed to believe that they command more expertise on technological teaching aids (than lecturers) such that lecturers can acquire such knowledge exclusively from workshops or seminars they conduct. They believed lecturers were not forthcoming in that regard.

Regarding the teaching staff, the researcher enjoyed the benefit of rapidly developing a rapport with them, to the extent that each one was ready to adjust their schedule to accommodate the interview session. The main challenge experienced was, firstly, that of interviewing the Head of Department and the Dean of the Faculty (who happened to be the members of DBA at the time); bureaucracy manifested, with their secretaries emphasising how busy their schedules were, yet the participants themselves had shown some signs of flexibility while arranging for the interview session. In the DBA, I felt the secretary might have not felt comfortable, to have been the only one (out of ten members) left when the rest of DBA members were being interviewed.

Managing one's own emotions as a researcher during interviews with DBA staff also posed a challenge. This was largely attributed to some colleagues being of a far higher rank (one full professor and two associate professors); who, due to their long duration in the Department (and NUL), would associate their limited participation in the lecture service evaluation with management regimes or CTL's 'ineffectiveness', amongst others. This also posed a risk of over-disclosing due to the shared experiences between the

reesracher and themselves, whereby they wanted to show that they understand the topic ‘far better’ due to their longer personal experiences.

With the students, power differentials relationships, in relation to coercion was the likely risk. Although the researcher had initially indicated to the students that their participation was voluntary and they could withdraw at any point in time, they were likely to feel coerced into the participation; hence the researcher distanced himself and solicited the services of a fieldworker to administer the student survey. The scenario was different for the focus groups (both from the selected courses and BCom Association) since participants were selected by class representatives and the Association’s president. Hoare *et al.* (2021) emphasise use of a third party to recruit participants, in light of reducing the risk of coercion. Bukamal (2022) stresses the importance of establishing rapport and approachability in insider research. The benefit, however, with dealing with one’s own students as participants was their familiarity with the researcher’s/lecturer’s posture during focus group discussions; for example, voice-tone when emphasising an issue.

Bulk and Collins (2023) acknowledge the complexity and subjectivity of insider research, and warn that it can challenge a researcher in unexpected and personal ways. The researcher was challenged in a personal way to share his teaching practice with students (in the focus groups) that he was teaching at the time, but maintained professionalism by viewing it as leading to professional growth in terms of improving teachings skills, based on actual review his lecture services by participants.

3.4 Research design

This study was an action research case study. Through action research, documented inquiry into practice and changes in same are simultaneously undertaken (Arnold & Norton, 2018). Mettetal (2001) considers action research as a research technique that practitioners use to inform their action. He notes the uniqueness of every teaching situation with regard to such aspects as content, teaching styles, learning and teaching skills and student skills, such that a classroom action research could enable a teacher to establish the best method, given his peculiar circumstances.

Action research was considered suitable for the study for the main reason that it involves those in practice (the researcher as an instructor, in this instance) and, by widening participation, includes others affected (students and other university stakeholders). Mettetal (2001) indicates that since the instructor is assessing the impact of his teaching, he inevitably examines his teaching strengths and weaknesses, and the level of skill of his students. This is supported by Arnold and Norton (2018), who mention that action research is

often used in educational contexts. Romano (2018) regards action research as a valid way of generating knowledge while enabling empowerment of those involved. Woldeamanuel and Goshu (2019) note that for learning to be effective, teaching should correspond to evaluation; results from action research can be used to measure education quality, in improving the teaching-learning process. That is, by allowing students to evaluate the quality of the lecture service while they partake in its production, the instructor can better package the lecture material and its delivery, thereby improving the teaching-learning process. Learning is ensured in action research through initiating a cycle of inquiry and action by participants (Somerville, 2017). Teachers tend to develop new knowledge pertinent to the classroom and solve problems which occur in the classroom through action research; this promotes thinking and reflective teaching (Hine, 2013). That is, by using this approach (action research) the instructor (researcher) was likely to gain new knowledge pertinent to the classroom activities for the courses he offered. Action research produces academic and pragmatic knowledge, while literature on action research as a research strategy emphasises the role of change (Romano, 2018). Social change in the real world can be observed through educational action research methodology (McNiff & Whitehead, 2011). Marti (2016) regards action research as implying participating, learning, decision-making and acting. He notes that it is based on mixed methods – qualitative and quantitative. This is consistent with this study since it employed a mixed methods approach, with a focus on the qualitative approach. By encouraging effective evaluation of new methods, action research can affect teaching and learning in HE context (Arnold & Norton, 2018). They highlight that focus groups may be used to engage students in the action research in various platforms. For Ferrance (2000), action research is likely to change and inform a teacher's future practices. He argues that non-systematic observations and informal data may be used as a basis to change, modify or reinforce perceptions, in order to improve the process of teaching and learning. Therefore, through implementation of action research in this study, whereby observations on students' perceptions of lecture service quality were made, both the lecturer's (researcher's) teaching and students' (participants') learning were likely to change in the process. Hine and Lavery (2014) assert that action research aligns theory to practice by helping teachers to develop knowledge pertinent to the classroom setting. Therefore, action research makes it easier for teachers to implement change in the classroom, school and community. Thus, the instructor (researcher in this study) was able to implement preferable changes within his classroom. Arnold (2015) asserts that action research involves change and improvement and, as a lecturer, one can only effect change within his/her own remit. Thus, for this study, the researcher evaluated classroom pedagogy in the context of three fourth-year modules that he delivered. "The practice of action research has been a fairly common mode of investigation in educational research, especially among those researchers interested in classroom teaching practices" (Berg, 2004: 195).

Ferrance (2000) notes the role played by action research in schools, whereby both instruction and achievement by students may be improved. It addresses those problems over which teachers have some influence and can make change (hence the decision to focus on the selected three Ps of *people, process* and *physical evidence* in this study). Reflective journals, focus groups, group discussions, interviews and nominal group technique are used to collect and analyse data from individual participants and groups during action research, in order to carry out in-depth study for a given case (Zuber-Skerritt and Fletcher, 2007). In identifying uses of action research, McNiff and Whitehead (2011) specify assessment of one's impact on his learning and on that of others, as well as improvement of his level of understanding, development of his learning or how others' learning is influenced. They consider action research as a tool to describe, interpret, and explain events (inquiry), while seeking to change them (action) for the better (purpose). Arnold (2015: 20) notes that "action research is about one's own practice, such that it should benefit him, his academic community and other key stakeholders, including students". She cautions that one has to be vigilant of action research's potential role in challenging existing practices – the status quo.

Contribution to a theoretical knowledge-base in improving the scholarship of teaching and learning is identified as a major highlight of action research as far as HE is concerned (Arnold & Norton, 2018).

This 'project' unfolds through stages of planning, observing, and reflecting (Carr & Kemmis, 2003). While it begins with analysing a context, after which various cycles are worked through, Nzembayie (2017) warns that action research may change direction, owing to its emergent and iterative nature. Raising questions, change and challenging assumptions which underlie practice, on top of assessing actions (Arnold & Norton, 2018) are distinguishing features of action research. Action research is cyclical in nature, whereby it starts with planning, effecting a change and then analysing the situation in order to bring about learning (Arnold, 2015). In their six-stage action research process, Arnold and Norton (2018) assert that exploring practice and identifying where a valuable change may be effected, in relation to a specific context and then taking relevant action, enhances that practice. They further consider implementation and systematic evaluation of such action, after which learning is articulated. They consider re-assessment of practice as leading to opportunities for a further cycle of research, and conclude that action research focuses on empowerment and change.

In line with the aim of this study, of improving learning and teaching for both students and instructors, "action research is a way of describing, interpreting and explaining events (inquiry) in an attempt to change them (action) for the better (purpose) (McNiff *et al.*, 1996: 203)". Action research was therefore appropriate in investigating one's own field; that is, the researcher's teaching at a higher learning institution, NUL. The

study was challenging the status quo – that is, a lack of a culture of measuring the quality of lecture services at NUL (at the time that the study was embarked upon) and using this for service improvement.

The study applied McNiff *et al's (*1996) interpretation of action research in that it attempted to improve learning and teaching for both students and instructors by describing, interpreting and explaining events (inquiry) in an attempt to change them (action) for the better (purpose). It challenged the status quo – that is, a lack of a culture of measuring the quality of lecture services at NUL – with the intention of subsequently improving the teaching-learning process for online lecture service delivery.

Typically, action research involves the following steps: "identify issues or challenges in practice; review possible interventions and select course of action; implement action; collect data to evaluate the action; reflect on learning" (Arnold 2016, cited in Arnold & Norton, 2018:12). In relation to this study, it was envisaged that these steps would involve the following:

- *Step 1:* describe the situation at NUL; explore why teaching quality measurement is not undertaken at NUL; identify issues/challenges to measuring the quality of the online lecture service in this context.
- *Step 2:* obtain student/staff input on important service quality dimensions, with primary focus on the selected three Ps; select/modify a service quality measurement instrument for use at NUL.
- *Step 3:* administer the selected instrument in the selected courses to get a 'baseline' measure of service quality.
- *Step 4:* implement changes to teaching practice, in relation to the three selected Ps; measure service quality after implementation; obtain student input to evaluate the selected instrument.
- *Step 5:* reflect on whether modifications may be necessary to teaching practice and/or the instrument, in light of findings from the previous step (if so, this may lead to another cycle of implementation, evaluation and reflection).

3.5 Research approach

The study employed a mixed-methods approach, encompassing both quantitative and qualitative methods, but with primary focus on qualitative methods. This was motivated by the fact that previous related research tends to be quantitative, presenting an opportunity for the study to potentially offer new or deeper

perspectives through inclusion of qualitative methods. Furthermore, online learning has been very recently adopted as a mode of learning at NUL and there has been no research done on this phenomenon in this context. The study could therefore be considered exploratory, and as warranting a qualitative approach to allow for further descriptive studies on same. In studying social relations, qualitative research becomes most relevant (Flick, 2018). As indicated previously, students' interactions with the instructor were a focus of this study. This approach was also considered relevant to the study, considering that understanding students' experiences in their respective programmes is vital for the study in terms of how they perceive lecture service quality. The quantitative method reinforced the qualitative insights in terms of magnitudes, where possible, of the impact of the identified variables. Abbas (2020) notes that quantitative and qualitative techniques (in a mixed-methods approach) reinforce each other in addressing the research problem, and that this enables developing a context-specific instrument. Thus, this study employed this approach in an attempt to develop a context-specific instrument – a measurement tool for the quality of the online classroom experience at NUL, in the context of Lesotho's HE sector. In summary, the study adopted a sequential QUAL-QUAN empirical mixed-methods approach (Parylo, 2012). Bowen, Rose and Pilkington (2017) used qualitative-quantitative sequential, explanatory mixed methodology and argue that it can provide new insight, knowledge and understanding in HE. They concluded that findings from interviews help explain the findings from the quantitative data. This is consistent with this study whereby interviews and focus group discussions were conducted first to obtain student and staff input on important service quality dimensions, with primary focus on the selected three Ps. Specifically, interviews were conducted with CTL and DBA staff to collect qualitative data. Focus group discussions with BCom Association students and 10 students from each of the three selected courses were separately held to collect qualitative data. The study then ran an online survey on 182 students registered for the selected courses, to collect quantitative data. The data analysis was then done separately; that is, for qualitative and quantitative data sets. Bonyadpour, Maasoumi and Nekooolaltak (2023) mention that ultimately, connecting integration of quantitative and qualitative results is done from separate quantitative and qualitative data analysis.

In relation to planned interventions, students' initial expectations and perceptions of lecture service quality were assessed. This initial feedback informed the choice of the specific interventions to be implemented. Subsequently, the impact on initial perceptions, following these interventions, was assessed. This was done through focus group discussions and observations with students in the selected courses. The measurement instrument was then run again. Observations were carried out in respect of noting increases or decreases in participation in organised discussion forums with the instructor, and how students actively enquired or engaged in dialogue in such forums. The whole essence was to assess the influence of actions related to the

selected Ps of the services marketing mix – i.e. *people*, *process* and *physical evidence* – on the quality of lecture services offered, as perceived by students. Thus, the study interrogated the relationships between these elements and students' perceptions of the quality of lecture services.

3.6 Study site

This study involved participants from NUL's main campus in Roma, which is about 35 kilometres south-west of Maseru, the capital city of Lesotho. However, given that NUL implemented online learning, data collection occurred remotely.

3.7 Target population

The target **student** population was the undergraduate students of NUL, comprising local and international students across various levels of study, in selected courses. Specifically, the population comprised Roma main campus students for the following courses: Strategic Management (year four level, with 139 students), Integrated Marketing Communications (year four level, with 22 students) and Services Marketing (year four level, with 21 students). As action research deals with examining and improving one's own practice, the specified courses were ones that the researcher was involved in as a lecturer. The specified courses are all offered at the fourth-year level. It can be argued that students at this level are well placed to express their feelings in terms of how they expect and perceive lecture service quality, owing to the experience they would have gathered since joining NUL. Thus, arguably, their input on such expectations and perceptions would be more elaborate than any other levels of study within the undergraduate student population.

In terms of **staff**, the population comprised all five staff of NUL's CTL. In addition, lecturing staff from the researcher's department (Business Administration) were interviewed (nine in total), in order to establish their perceptions of the roles of *people*, *physical evidence* and *process* in lecture service quality, and the interventions those lecturers have implemented to enhance the classroom experience for students. Their reflections on barriers and other hindrances to service quality measurement and improvement were gathered as well.

3.8 Sampling strategies

Non-probability sampling, namely, purposive sampling, was employed. In line with the purposive method, the researcher sought out elements that met specific criteria; for example, students on the main campus (Roma) and registered for the selected courses.

3.9 Sample size

A sample of 188 students was selected from the student-population. This comprised all students registered for the selected courses as follows: Strategic Management (139 students), Integrated Marketing Communications (22 students) and Services Marketing (21 students) as well as nine students from the BCom Association (of which six were not registered for the selected courses). All five staff members of the CTL were selected. Nine teaching staff members from the DBA also formed part of the sample, with the objective of exploring their perceptions of online classroom experiences on the ground, as well as the interventions they put in place. Thus, a total of 188 (139 + 22 + 21 + 6) students and 14 (9 + 5) staff members participated in the first step of the study. For the CTL staff, an e-mail was sent to each, informing them of the study and requesting their participation. Once they had agreed, individual interviews were conducted via Zoom (with audio recording). For the nine DBA teaching staff members, the departmental WhatsApp group was used to inform and invite members to participate in the study, after which individual interviews were conducted via Zoom (with audio recording).

Remote data collection was necessary because of COVID-19. Zoom meetings were considered suitable for the staff interviews as Zoom was being used across units at NUL, and the researcher already often used it to share information on courses with colleagues in the DBA or with CTL staff (CTL administers the thuto learning management system, currently used for online teaching and learning at NUL). For the student survey, the *announcements* portal in the thuto learning management system was used to alert students to the study and invite them to participate. Reminders were provided by way of announcements at the end of online classes in the target courses. For the BCom Association focus group, the association's president helped organise the focus group. Additional student focus groups comprised of three groups of students from each of the three courses that the researcher was offering. Class representatives organised these focus groups. There were thus four focus group discussion sessions, spread between December 2022 and March 2023 (mid-second-semester), long before second-semester final examinations. The sessions typically lasted for one hour and thirty minutes, with a five-minute break halfway. Zoom (with audio recording) was used to conduct the student focus group discussions. Willemsen *et al.* (2022) observe that digitalisation addresses time, money and location constraints, while it affords participants a chance to comfortably share ideas and experiences online.

The interviews with five staff members from the CTL, along with document analysis and observation, constituted the sample for **Step 1** of the action research process.

A focus group comprising nine students from BCom Association, amounts to **Step 2.**

Self-administered questionnaires made accessible online to the 182 students in the sample drawn from the three selected courses, in order to obtain a baseline measure of service quality, formed **Step 3**.

Interviews and/or focus groups and/or questionnaires with students/staff in the selected courses to solicit feedback, were conducted in **Step 4**. Individual interviews were conducted with nine DBA teaching staff. For the focus groups, nine members of the BCom Association and 30 students drawn from the three selected courses were contacted – six within the BCom Association were not registered for the selected courses while three were. Therefore, a total of four focus group sessions took place. In addition, a questionnaire was administered to 182 students following the interventions.

Step 5 involved reflection. This refers to the researcher's reflection on the action research process/cycle that has been completed. The researcher kept a journal/notes for this purpose.

3.10 Data collection methods

Data collection took place remotely, due to COVID-19-related restrictions on contact-based teaching and research. Arnold and Norton (2018) identify observations, semi-structured interviews, reflections on one's own practice, informal interviews, focus groups, questionnaires and artifacts (such as forum posts or student assessment work) as various ways of collecting data for action research. The data collection methods for each step of this action research study are summarised in Table 3.1 and discussed thereafter.

Table 3.1: Overview of data collection

Step	Participants/data sources	Type of data	Data collection method	Purpose of data and research objective addressed
Step 1	5 staff from the Centre for Teaching and Learning	Qualitative	Interviews (via Zoom)	• The qualitative data gathered from CTL staff was intended to establish why the quality of lecture services is not regularly measured/ monitored at NUL. CTL was appropriate in this regard since they are the custodians of teaching and learning policy-related issues at NUL. This qualitative data enabled the researcher identify issues/challenges to measuring the quality of the lecture service in this context. Thus, obtaining background/contextual information at this stage was crucial. Document analysis, of teaching-quality-related documents and student-feedback documents (from lecturers who do *ad hoc* evaluations), was conducted to establish the context at NUL. Based on this information, the study was going to be able to propose a way of measuring lecture service quality at NUL, which was the primary objective pursued by the study (PO).
	182 year four students (139 in Strategic Management, 22 in Integrated Marketing Communications, 21 in Services Marketing) 3 online classes per course were observed (peer review) Class sessions using Zoom on thuto were observed and cloud recording on Zoom (which can be replayed) was analysed to study	Qualitative	Observation	• A member of the DBA observed the researcher's (lecturer's) online teaching practice; student participation in online learning was observed as well. This was done to pursue the research objective of understanding lecturers' expectations and perceptions of lecture service quality at NUL (RO1).

	student participation in online learning			
Step 2	One focus group comprising 9 students from BCom Association 9 teaching staff from the Department of Business Administration	Qualitative Qualitative	Focus groups (via Zoom) Interviews (via Zoom)	• An in-depth focus group discussion with BCA students was held to understand what they expect and perceive as far as lecture service quality is concerned; that is, a research objective of understanding what undergraduate students at NUL expect and perceive in terms of lecture service quality was pursued through conducting this focus group discussion. (RO1). The information gathered also shed light on the objective of proposing a way of measuring lecture service quality at NUL(PO). • DBA teaching staff were also interviewed, from which qualitative data was gathered. The purpose was to establish what they expect and perceive in terms of lecture service quality. Through this interview, the research objective of understanding lecturers' expectations and perceptions of lecture service quality at NUL (RO1) was pursued. This also enabled further pursuing the research objective of proposing a way of measuring lecture service quality at NUL (PO).
Step 3	182 students from the 3 selected year-four courses (139+22+21)	Quantitative	Survey (online)	• A self-administered questionnaire via Google Forms was used to obtain baseline measure of lecture service quality. This was intended to assess students' initial perceptions of lecture service quality at NUL (RO2). That is, the information gathered enabled pursuing of RO2 of the study.

Step 4	182 students from the 3 selected year-four courses (139+22+21)	Quantitative & qualitative	Questionnaire/ focus group	• Focus group discussions with students from the three selected courses were conducted to get their feedback on the interventions the lecturer (researcher) implemented, and on the instrument used. These were meant to attain the following research objectives: - To determine the influence of interventions related to interaction between students and staff, on students' initial perceptions of online lecture service quality (RO3) - To determine the influence of interventions related to the lecture service production process, on students' initial perceptions of online lecture service quality (RO4) - To determine the influence of interventions related to the physical evidence surrounding the online lecture service, on students' initial perceptions of lecture service quality (RO5)
Step 5	Reflective journal	Qualitative	Reflection on own practice	• To reflect on whether modifications may be necessary to teaching practice and/or the instrument, in light of findings from the previous steps (if so, this may lead to another cycle of implementation, evaluation and reflection).

The purpose and focus of the various steps/stages of the action research, as depicted in Table 3.1, are elaborated on below in relation to the research objectives and the entire research process.

Step 1

This step was intended to explore the situation surrounding lecture service quality evaluation at NUL; that is, to gather background information about how NUL has been carrying out the exercise of assessing teaching quality. The purpose was to understand the context in which the exercise has or has not been undertaken. Reasons why lecture service quality had not been regularly measured were to be established through this step, as well as related challenges and issues. Finally, this step also intended to establish the nature/extent of student participation in online learning.

Having identified all the above through this step, the study would then be better placed to propose a way of measuring lecture service quality at NUL, which was the primary objective of the study. Staff from the CTL and teaching-quality-related documents were used as sources of data in this step, and interviews and observation were used as data collection methods. This step also involved peer-observation of the researcher by a colleague with the objective of understanding lecturers' expectations and perceptions of lecture service quality at NUL, which is part of RO1.

Step 2

This step pursued part of the research objective (RO1) of understanding what undergraduate students at NUL expect and perceive in terms of lecture service quality. This also partly linked to the primary objective (PO): To propose a way of measuring lecture service quality at NUL. Teaching staff from DBA and students in the BCom Association were used as sources of data for this purpose and interviews and focus group discussion we used, respectively, in collecting the data.

Step 3

This step was meant to obtain a baseline measure of lecture service quality, which directly links to the research objective (RO2) which involves assessing students' initial perceptions of lecture service quality at NUL. All the students in the selected courses were surveyed to obtain data for this step.

Step 4

This step intended to obtain feedback from both the students (in the selected courses) and the teaching staff, on the interventions implemented by the researcher and instrument proposed.

This also links to the following research objectives, which attempted to ascertain students' perceptions after the researcher has implemented interventions:

- RO3: To determine the influence of interventions related to interaction between students and staff, on students' initial perceptions of online lecture service quality.
- RO4: To determine the influence of interventions related to the lecture service production process, on students' initial perceptions of online lecture service quality.
- RO5: To determine the influence of interventions related to the physical evidence surrounding the online lecture service, on students' initial perceptions of lecture service quality.

A questionnaire and focus group discussion were utilised (for students) and interviews for teaching staff.

Step 5

In this step, the researcher intended to reflect on his own practice, whether modifications may be necessary to teaching practice and/or the instrument, in light of findings from the previous steps.

3.10.1 Overview of data collection methods used

Five methods of data collection were used: survey, interviews, focus groups, document analysis and observation.

- The survey

"Survey research is a non-experimental research approach used to gather information about the incidence and distribution of, and the relationships that exist between variables in a pre-determined population" (Coughlan, Cronin and Ryan, 2008: 9). They note that it is useful in collecting data about behaviours, attitudes and frequency in events. The study employed this approach to establish frequency in events relating to online teaching and learning as well as establishing attitudes and behaviours of students during the teaching and learning activity. The authors (Coughlan *et al*.) identify measurement and representation errors as shortfalls of this approach when using a sample, which are avoidable when using population in the survey. The study used population (i.e. all the students – 182 in number for the selected courses) for the survey.

The study utilised a self-administered questionnaire, and the response rate was 29%. Coughlan *et al*. (2008) have identified a low level of responses as one of the limitations of the survey approach. The study battled with this limitation, which it attempted to combat by running focus group discussions (three in number, each with ten members) from the same sample with the same questionnaire as that used in the survey.

The authors (Coughlan *et al*.) identify another limitation of the survey approach as the likelihood that the participants might seek help in completing the questionnaire, thereby compromising the extent of the sample representing the population. The study attempted to combat this limitation by probing further into the respondents' answers during the focus group discussions. Another limitation was that there was a likelihood that some questions were considered controversial by students; for example, those related to assessment. The researcher did not have a platform to arrest such a problem, except to ask the fieldworker to emphasise the anonymity of responses alongside reminder messages during the survey exercise.

Jamsen, Corley and Jansen (2007) consider Internet-based surveys and identify their main advantage as decrease in costs. The study enjoyed this benefit as both the researcher and students did not incur costs in the survey since the thuto learning management system already used by NUL was used to run the survey. The researcher only paid the fieldworker who was overseeing the process.

Google Forms was used to distribute the questionnaire online to students registered for the selected courses, and to collect the responses. Google Forms was considered appropriate since it allowed online access by the students and anonymous submission, thereby allaying potential student fears that they could be traced back to their personal identities, hence possible impact on their academic performance. A fieldworker was engaged from the CTL to oversee the survey, further creating confidence among students that they were not directly dealing with the lecturer who was being assessed.

In summary, a survey method, whereby a self-administered questionnaire was run on students online by a fieldworker using Google forms, which ensured the anonymity of participants, was used in the study.

- The interviews

"Qualitative research interview is an interview whose aim is to gather descriptions of the life-world of the interviewee with respect to interpretations of the meaning of the described phenomena" (Kvale, 1983: 174).

Fox (2006) singles out the benefit of interviews as enabling exploration of experiences of all the participants. Thus, this study found this method suitable as the researcher wanted to explore a range of experiences of both the teaching staff and the CTL staff, as far as online teaching and learning is involved. Fox (2006) gives another benefit of this method as saving on costs, particularly when done online. The researcher in this study enjoyed this benefit as both himself and the participants utilised Internet and Wi-Fi provided by NUL.

Individual interviews were conducted on Zoom (with audio recordings) for both the teaching and CTL staff. Opdenakker (2006) mentions an advantage of online interview as increasing accessibility to participants as they can be reached anywhere, at their convenience, while recording of interviews enables production of accurate information (than simply writing notes) in the report. Another advantage identified by Opdenakker (2006) is that of allowing participants remain anonymous. The author argues that this enables participants to freely express their opinions. In this study, anonymity was ensured as participants logged into the Zoom meeting using proxy names or pseudonyms. In addition, interviews had the advantage of allowing the researcher to provide clarity (especially on some terminology) and probe further into participants' responses. They were thus appropriate for the study as the participants were sharing their actual experiences as far as online teaching and learning at NUL was concerned. Interviews also allowed the researcher to scribble additional information along the interview session (on top of the audio recording). Such information came in handy during the transcription process.

Regarding limitations of the interview method, Kvale (2006) mentions that of the delay in terms of the time that is taken between the question and the answer in online interviews (such as Zoom meetings). In this study, this limitation was further complicated by the unreliability of the Internet; hence, there were frequent cuts in conversations during the interviews. Kvale (2006) notes the pre-condition of reliable technological devises (such as computers and phones) for both researchers and participants with the online interview method. The researcher in this study attempted to minimise this limitation of unreliable connectivity by alerting participants a few minutes into the interview, to locate a 'hotspot' for Internet and Wi-Fi whenever possible (especially when participants were on NUL main campus, since such places are well known to staff and students). Kvale (2006) cites the interviewer's inability to create a favourable background (ambience) since he/she is not aware of the interviewee's situation (unlike in the face-to-face interview), as a limitation. This characterised the study since both teaching and CTL staff were being interviewed at places of their convenience, which the researcher could not influence in terms of creating a conducive background for the interview. The researcher could only emphasise the importance of avoidance of noise and

distractions to the participants, as he arranged for the interview. The interviews also posed the limitation of allowing participants spend too much time on a given issue or too little time on another; or even technically to avoid some issues. For example, lecturers were reluctant to explain whether they individually initiate lecture service quality evaluation exercises. The researcher attempted to emphasise the significance of precision, to the participants.

Thus, separate interview sessions were conducted for each of the members of DBA teaching staff and each of the members of CTL. An audio-recording, alongside note-taking, was done for every interview session. Each member was interviewed at a place of his/her convenience, using the same semi-structured question-template for each group, that is, for teaching staff and CTL staff.

- Focus groups

"Focus group is a type of in-depth interview accomplished in a group, whose meetings present characteristics defined with respect to the proposal, size, composition, and interview procedures" (Mishra, 2016:1). Focus group discussions were suitable for this study since they provided in-depth insights into the students' expectations and perceptions of lecture service quality, particularly after interventions were implemented by the researcher as an instructor in the selected courses.

Willemsen *et al.* (2022) argue that focus group discussions held online produce data whose quality can be compared to that obtained from physical discussions with participants. They consider such benefits as enabling participants to enjoy the discussion in the comfort of their chosen locations, thereby saving time to travel. Thus, the focus group participants in this study (students in the selected courses and BComm Association representatives) enjoyed the discussions at their respective locations, in time slots that fit their schedules. On top of this benefit, participants also sought clarity on certain questions, while they were all attempting to fully participate in the discussion. While the fieldworker facilitated the survey questionnaire that was administered online, the researcher conducted all the focus group discussions himself. The researcher therefore had a chance to provide further clarity, while also probing further into the participants' responses.

Mishra (2016) notes that focus group discussions have an advantage of enhancing the understanding of the participants' beliefs and experiences. Thus, in this study, the researcher came to understand the students' experiences and the extent of their belief in NUL providing high quality online lecture services. Mishra (2016) also shows that focus group discussions allow exploration of topics and generation of hypothesis

and frameworks. The participants in this study explored the topic further by assessing the effectiveness of some of the interventions implemented by the researcher; for example, they showed preference for the WhatsApp tool over thuto chatroom, in discussing course-related materials/issues.

Some limitations of this method have been identified in literature. Mishra (2016) notes the researcher's inability to control the process of generating data during the focus group discussion. The researcher experienced this limitation and could only emphasise professionalism among the participants in the course of discussion. Another disadvantage Mishra (2016) points to is the fact that dialogue during the discussion is facilitated by the atmosphere; that is, how conducive the atmosphere is. This limitation confronted the study as the participants tried to avoid responses to questions which participants perceived controversial, particularly on assessment and individual consultations of the instructor. They could not freely voice their opinions in such instances. The researcher attempted to provide re-assurance that they could not be traced back and there would be no impact on their academic performance. This method also had a limitation of allowing participants formulate a response, in the sense that they would want to respond in a consistent way – all agreeing or all disagreeing to a certain question. The researcher attempted to emphasise independence to the participants in terms of their responses.

All in all, four focus group discussions were held; one for BCom Association (9 members), one for the Strategic Management course (10 members), one for the Integrated Marketing Communications course (10 members), and one for the Services Marketing course (10 members). All the sessions were audio-recorded, alongside note-taking, by the researcher. There was a five-minute break half-way through each session. For the focus groups selected from the three courses, the same question-template was used, but at different times of the semester, hence at different stages of implementing interventions. These focus groups were also coming from courses with varying number of students, hence varying student-teacher ratio implications.

- Document analysis

Bowen (2009:19) defines document analysis as "a systematic procedure whereby electronic or printed documents are evaluated". He identifies the following documents as qualifying for systematic reviewing: manuals, minutes of meetings, letters, newspapers, brochures and books, journals and diaries and event programmes, survey data, institutional reports and various public records. Bowen (2009) emphasises that different methods and sources of data should be used when conducting qualitative research. He argues this reduces the possibility of biases common in a single data set study. He concludes that document analysis adds to such data sets collected through interviews and observation (as was the case in this study). On top

of that, Bowen (2009) indicates that document analysis comes in handy when implementing a mixed methods approach in research (as employed in this case study). Bowen (2009) identifies the most important advantage of document analysis as that of providing data about the context of the participants; that is, for this study, establishing why lecturers do not consistently and systematically conduct lecture service quality evaluation. Bowen (2009) further argues that document analysis also provides insights in terms of background and historical information; that is, what has been happening at NUL, before and after introduction of the SET tool in 2014. Thus, document analysis forms a basis to track development and change. Wood, Sebar and Vecchio (2020) corroborate that document analysis sheds light in terms of how current participants' views and actions are impacted as change evolves and development shapes up. That is, how the use of SET (or any other tool) at NUL has been impacting the lecturers' teaching quality. Bowen (2009) points to the greatest disadvantage of document analysis as providing limited detail, mainly because the documents are produced without the research in mind, but for a given purpose. For example, the documents on evaluation of teaching at NUL were produced well ahead of COVID-19, not knowing that NUL would one day shift to the online mode of teaching and learning, which would need to be assessed. The researcher attempted to address this limitation by focusing on those aspects in the background and historical information that might be relevant to the current situation. For example, conducting lecture service quality evaluation by lecturers on an *ad hoc* basis – lecturers could still continue doing that, even when offering lecture services online.

Specifically, the following documents were reviewed in the study: minutes of meetings – departmental meetings on teaching quality issues, reports on teaching quality assessment, obtained from CTL and DPO and newspaper- articles in the NUL library – archives section, about quality of tuition and graduates of NUL.

- Observation

Coughlan *et al*. (2008: 12) define observational survey as "counting discernible objects or incidents identified on an observation checklist or rating scale".

Elsom and Collis (2018) identify an advantage of observation as the ability to record or capture evidence as and when occurrences take place. That is, for this study, the observer captured the researcher's teaching practice as teaching and learning were taking place.

Fry, Curtis, Considine and Shaban (2017) note that observation improves the level of understanding of the practice, beliefs, attitude and knowledge in a social setting or interactions. Thus, the study utilised the method, whereby the observer established the level of knowledge of the researcher (as an instructor) in the selected courses, so that improvement could be made.

The study used a peer observation schedule (observation checklist) as an instrument for the observation exercise. Bennet and Barp (2008: 23) define peer observation as "a process whereby one teacher explores the teaching and learning process undertaken by another, with a view to improve how students learn".

The observation method, however, has limitations. Elsom and Collis (2018) assert that, for observation to work, colleagues first have to acknowledge it as a useful assessment activity. This was a challenge for this study as colleagues seemed not so used to carrying out the exercise, as well as not embracing it that much as an assessment tool or exercise. The researcher attempted to address this problem by convincing colleagues of the importance of observing each other, so that collectively, our teaching practice is enhanced, as we share experiences upon completing the exercise. Coughlan *et al*. (2008) show a limitation of the method in that the participant can change behaviour to impress the person carrying out the observation. The study attempted to address this problem by the researcher (being observed) recalling that the whole exercise was not punitive, but was meant to improve his teaching practice. The authors also point to the possibility of an observer adjusting ratings, either favourably or unfavourably, towards the behaviour of the person being observed. The researcher did not have any influence in this regard, except to rely on the observer's level of professionalism.

3.11 Data quality control

Arnold and Norton (2018) indicate that validity is achieved by using appropriate processes and tools and taking those steps that ensure inclusion of truthful and honest perspectives and views of those involved in the action research project. Owing to the mixed-methods approach used in the study, data quality control was addressed separately.

3.11.1 Qualitative data

For the qualitative data, trustworthiness was considered in relation to Guba's (1981) four criteria, namely, *truth value, applicability, consistency and neutrality* (Kerfting, 1990) and the corresponding strategies to achieve them (credibility, transferability, dependability and conformability).

Guba's (1981) four criteria model is explained as follows:

- **Truth value -** assesses the extent of the researcher's confidence in the truth of findings, given the context, research design and informants.

- **Applicability -** assesses the extent of generalising from the findings by applying them to different groups, settings and contexts.

- **Consistency -** assesses the extent of replicating; that is, consistency of findings when the research is conducted in a similar context or the same subjects.

- **Neutrality -** relates to unbiasedness of research procedures and results, such that findings are solely influenced by research context and informants.

Shenton (2003) asserts that these constructs by Guba have won considerable favour. Wang and Strong (1996), as well as Strong, Lee and Wang (1997), single out accessibility and context-appropriateness as fundamental in quality control measures.

The strategies used to achieve Guba's (1981) four criteria are discussed below.

- Credibility

Anney (2014: 8) defines credibility as "the confidence that can be placed in the truth of research findings". The author states that credibility is achieved through the researcher's attempts to understand the context of the study, particularly the participants, such that a distorted information is avoided during data collection activity. Krefting (1990) emphasises the importance of the researcher spending considerable time with participants in the research setting, so that he/she notices patterns which may recur.

- Transferability

According to Anney (2014), transferability assesses the extent to which qualitative results are transferrable to other settings or contexts with different respondents. The author compares transferability to generalisability in this context. The author states that transferability is achieved by providing details of processes used during data collection and the context under which the report was produced. Krefting (1990) notes that the key issue is the extent of the informant representativeness, as far as data transferability is concerned.

- Dependability

Anney (2014) considers dependability as involving evaluation of research findings by participants, after which they interpret and make recommendations, based on the extent of support data collected from them (and other informants) renders. The author outlines that such strategies as peer examination, stepwise replication and audit trail can be used to establish dependability. Krefting (1990) observes that qualitative research, as far as dependability is concerned, requires description of precise methods used to gather, analyse and interpret data.

- Confirmability

According to Anney (2014), confirmability relates to the extent to which other researchers corroborate or confirm results of the research. The author indicates that this can be achieved by such strategies as reflexive journal, triangulation and audit trail. Krefting (1990) advocates for triangulation of various sources of data and methods, to establish confirmability.

The actions taken in this study in relation to Guba's criteria are summarised in Table 3.2.

Table 3.2: Data quality – qualitative data

Criterion	Strategy	Actions
Truth value	Credibility	• Prolonged and varied engagement with participants during various stages of action research. For example, engagement with students included a survey, focus group discussions and observation of online classes, over a period of several weeks. • Solicited input from both students and staff (triangulation). • Audio recorded focus group discussions and interviews. • Employed fieldworker for the survey, so that students felt free to share their views. • For self-administered questionnaires, anonymity of respondents was emphasised, and that the information given would in no way affect their academic performance. Use of Google Forms ensured anonymity.
Applicability	Transferability	• Provided background information about the participants and the research context/setting, so that findings can be assessed by others in terms of transferability.

Consistency	Dependability	• Provided dense description of the research methodology adopted in the study.
Neutrality	Confirmability	• Kept track of the progression of events, to establish an audit trail and enable others to understand how and why decisions (e.g. course and participant selection) were made. • Addressed the role of the researcher as a practitioner-researcher/insider-researcher. • Audio recorded interviews and focus group meetings. • Triangulation (variety of methods and data sources)

Source: Author

Golafshani (2003) notes that the type of data to be gathered is determined by notion, initial concept, question or hypothesis. That is, the question of why lecture service quality is not assessed on consistent basis at NUL determines the type of data (and how) to be gathered.

3.11.2 Quantitative data

With regard to quantitative data, quality is usually looked at in terms of reliability and validity (Joppe, 2000). The author asserts that the extent to which the research measures what it was designed to measure translates to validity. Tavakol and Dennick (2011) consider reliability and validity as fundamental in evaluating a measurement instrument, such as a questionnaire. This study used a questionnaire (based on the widely-used, validated SERVQUAL instrument) to survey 182 students in the selected courses.

Joppe (2000) defines reliability in terms of consistency (over time) and accuracy of representation of the total population being studied. He also considers reliability of the research instrument whereby reproduction of study results using a similar methodology is achieved. Tavakol and Dennick (2011) emphasise the significance of reliability by claiming that the instrument has to be reliable, for it to be valid. They propose Cronbach's alpha as mostly objectively used in measuring reliability, claiming its user-friendliness, even to non-statisticians, as compared to most estimates. Teeluckdharry *et al.* (2021: 41) define Cronbach's alpha as "the degree to which a set of items in the scale co-vary, relative to their sum score".

Tavakol and Dennick (2011), however, point to a Cronbach's alpha limitation that users fail to properly use and interpret it. Despite this limitation, Workie *et al.* (2017) used this estimate (Cronbach's alpha) for testing internal reliability for five dimensions of service quality (SERVQUAL's) and found that the

Cronbach's alpha coefficients exceeded the 0.75 threshold for all measurements, showing the consistency and reliability of the questionnaire used.

Since the study was mainly qualitative and exploratory in particular, and only intended to suggest a measurement instrument which other researchers could validate in the future, for quantitative quality control, the researcher performed reliability test of the instrument only, to test the internal reliability of the questionnaire. The questionnaire comprised three dimensions of SERVQUAL (empathy, responsiveness and tangibles) and was divided into three major sections; namely, student-lecturer interaction (people), lecture service production and delivery (process) and physical facilities impacting classroom experience (physical evidence). Ten items relating to *people* (empathy – SERVQUAL), thirteen relating to *process* (responsiveness – SERVQUAL) and another thirteen relating to physical evidence (tangibles – SERVQUAL), were rated on a Likert scale. This total of thirty-six items (i.e. 10 + 13 + 13) had been devised by the researcher, while the three dimensions of the widely used SERVQUAL had been selected on the basis of their pertinence to teaching and learning, and being controllable by the lecturer.

The internal reliability was tested on the following three areas:

- The lecturer (empathy), with ten items
- Teaching and learning activities (responsiveness), with thirteen items
- Classroom environment (tangibles), with thirteen items

The results of the reliability test were as follows:

- The lecturer: ten items were used to measure empathy construct and the result was 0.91, which is above 0.75 (the threshold suggested by Workei *et al*., 2017). This means that all the items measured the teacher's empathy as intended.
- Teaching and learning activities: thirteen items were used to measure the responsiveness construct and the result was 0.93, which is also far higher than 0.75. This means that all the items measured the teacher's responsiveness as intended.
- Classroom environment: thirteen items were used to measure the tangibles construct and the result was 0.95, which is higher than the 0.75 threshold, meaning that all the items measured the classroom environment's tangibles.

Overall reliability test, using all 36 items, resulted in 0.95, meaning that the questionnaire used was statistically reliable, in terms of the scale.

3.12 Measurements

With regard to the quantitative measures, a modified SERVQUAL instrument was used to obtain a baseline measure of lecture service quality. In measuring the effects of the 3Ps, an adapted version of the SERVQUAL instrument was implemented to assess the gap between student responses on expectations and perceptions on student-related outcome variables, specifically learning (and teaching). That is, a survey instrument was divided into three major sections; namely, student-lecturer interaction (people), lecture service production and delivery (process) and physical facilities impacting classroom experience (physical evidence). An appropriate Likert-scale was then developed to measure variances in relation to these aspects. That is, a questionnaire to determine service gaps was administered.

The following instruments were used for qualitative measures:

- Interviews

Interviews were held with both teaching and CTL staff, whereby each member was interviewed separately on Zoom (with audio recording). The interview guide templates are attached as Appendix D (for teaching staff) and Appendix C (for CTL staff).

- Focus groups

Focus group discussions were conducted with four groups - three (with ten students each) from the selected courses and one (with nine students) from the BCom Association. All the sessions were held via Zoom (with audio recording). The focus group discussion guide templates are attached as Appendix E (for the groups from the selected courses) and Appendix E (for BCom Association focus group).

- Observation

A peer observation schedule was used for the observation exercise. The observation schedule template is attached as Appendix F.

- Document analysis

The study utilised Labuschagne's (2003) model by arranging quotations, passages and excerpts (minutes of meetings, and institutional reports) into major themes. There was no template used to undertake document analysis. Labuschagne (2003) observes that quotations, entire passages or excerpts are yielded from document analysis, and they are eventually arranged into categories and major themes through content analysis.

3.13 Data analysis

This section is sub-divided into qualitative and quantitative data analysis, in respect of the mixed methods approach employed in the study.

3.13.1 Qualitative data analysis

The qualitative data that was gathered via interviews and focus groups was analysed through thematic analysis. Various authors define thematic analysis, with Joffe (2012) considering it as a way of identifying themes which are important in describing a phenomenon being studied. He states that the most noticeable gathering of meanings present in the dataset should be highlighted. For Nowell, Norris, White and Moules (2017:21), thematic analysis is "a qualitative method useful when large qualitative data sets are being analysed". Vaismoradi, Turunen and Bondas (2013) consider thematic analysis as an independent qualitative descriptive approach. Thematic analysis explores and records patterns within data (Fereday & Muir-Cochrane, 2006; Maguire & Delahunt, 2017).

Thematic analysis carries several benefits, as outlined by the following authors. Xu and Zammit (2020) acknowledge the accessibility and flexibility of this method by showing that it facilitates analysis of data collected in the natural classroom setting. This suited this study, which assessed lecture service quality in a classroom environment. These authors conclude that exploration of events, experiences and meanings gathered from data (in the form of text) and interviews (verbal) is facilitated by thematic analysis through tools used to collect data. The data sets that were collected, along with how they were thematically analysed in the study, are outlined below.

- Focus group data analysis

As previously indicated, four focus groups were assembled, one from BCom Association and three from each of the three selected courses offered by the researcher (as an instructor). A discussion-guide was prepared for the BCom Association while the same survey-questionnaire used for 182 students and

administered online, was used for the three focus groups selected from each of the three selected courses. A thematic analysis method was used to analysis data from the BCom Association focus group only while data gathered from the focus groups on the selected courses was categorised under quantitative data for reasons to be advanced in Chapter Four.

For the BCom Association focus group, data on events and experiences relating to lecture services in the online teaching and learning was gathered and themes were accordingly developed, in relation to the discussion-guide.

- Interview data analysis

As previously highlighted, separate interview sessions were conducted for the teaching and CTL staff at varying intervals for each of the members; that is, each member was interviewed separately at the time and location that suited his/her convenience. Separate interview-guides were used for the CTL staff and the teaching staff. For CTL staff, the interview dwelled on their role in lecture service evaluation at NUL, with emphasis on initiating and/or assisting the exercise and distribution or evaluation results to relevant stakeholders. Data gathered was dominated by CTL's role in facilitating lecture service evaluation and overseeing teaching and learning policy at NUL. Relevant themes were accordingly developed and interrogated.

Teaching staff were interviewed mainly with regard to their lecture service quality expectations and perceptions, their intervening mechanisms during online teaching and learning, familiarity with lecture service evaluation exercise at NUL and frequency of conducting such the exercise. Subsequently, themes were developed and probed, in relation to the main and frequent issues that arose.

Nowell *et al.* (2017: 23) single out one advantage of thematic analysis being that "it does not require the detailed theoretical and technological knowledge (by the researcher) of other qualitative approaches". Thus, it offers a more simple form of analysis. They however, caution that the thematic analysis should be used with care since its flexibility may give rise to inconsistency and failure to establish coherence as themes are developed from the gathered data. Joffe (2012) regards thematic analysis as a systematic method, which can concurrently analyse interviews, text-material and image-material gathered from various groups, including professional and lay people. Thus, analysis of documents (from the CTL and teaching staff) and focus group discussions from students (being lay people) and lecturers (being a group of professionals) was

conducted. Braun and Clarke (2006) identify an advantage of thematic analysis as it being useful for producing qualitative analysis suited to informing policy development. Thus, from the thematic analysis in this study, NUL could potentially devise a clear policy on online lecture service quality evaluation. They (Braun and Clarke) also claim the usefulness of thematic analysis in a research setting where participants play a collaborative role. Thus, it was suited to the action research design employed in this study, in which students collaborated.

Anderson (2007) however, highlights limitation of thematic content analysis by showing that it is merely descriptive, and thus cannot provide a complete analysis of research findings. This study addressed this limitation by using both qualitative and quantitative analyses, in which case the latter curbed the mentioned limitation by extending from simple descriptions to providing magnitudes wherever possible. Xu and Zammit (2020) also show its limitation that failure to describe and provide sufficient information of how the analysis was carried out makes it difficult for end-users of the report to comprehend it, in terms of systematic coding and deriving themes from the gathered data.

The following steps, suggested by Anderson (2007), were followed when carrying out the thematic analysis in the study:

- Production of multiple copies of interview transcripts (or other extant text, including post-interview notes). Interview notes were made by the researcher as the interview progressed. The multiple copies were meant to be a back-up as some were given to and kept by the fieldworker.

  Interviews were used for CTL and teaching staff separately. Each member was interviewed at the time and location of their convenience. During the interview (which was audio-recorded), the researcher took notes and later transcribed those notes, while also playing and re-playing the recoded audio for clarity. The transcribed material for each individual interview (in a Word document) was photocopied and distributed to the fieldworker, while other copies were safely kept in the researcher's office. Soft copies were separately sent to the supervisor as a compilation for each group of interviews; that is, for CTL staff and teaching staff.

- Description relating to the topic and satisfying the criteria are marked with a highlighter, as per the methodology requirements. Responses directly related to online lecture service quality in relation to the impact of 3Ps, were highlighted as the most significant. Themes were accordingly drawn from the highlighted responses.

- Retaining of information important to understand and distinguish units of meaning is done by separating those units by a change or break in the meaning. Such meaning units as students' understanding of high-quality lecture service, high-quality lecture production process and high-quality physical evidence were marked. That is, information pertaining to the selected 3Ps, in relation to their influence on the lecture service quality was retained.

- Cutting out of units and putting similar units together in a pile and then coding of each unit. All units relating to 'high-quality' lecture service, production process and physical evidence were placed together and coded 'high-quality'. The quoting was done in light of the contents of the interview-guide used; that is, those questions which gave rise to a similar or closely related responses were put together and a relevant theme was accordingly developed. For example; the lecturers' response to whether lecture service evaluation is done at NUL and how often it is carried out, were grouped together, and a theme (Frequency of lecture service evaluation at NUL) was developed.

- Observations

  In the study, three online classes per course (i.e. Strategic Management, Integrated Marketing Communications and Services Marketing) were observed (via peer review). That is, observation of the lecturer's (researcher's) online teaching practice was done by a peer from the department. These class sessions using Zoom on thuto were observed and cloud recording on Zoom (which can be replayed) was done. The peer reviewer was rating the researcher on an observation schedule every time she carried out the observation exercise. That is, a new observation checklist was given to and filled in by a peer observer every time she conducted the exercise. The same question-template was used, but at different intervals of the semester, hence at different stages of implementing interventions. Another point to note is that the observation was done in three different classes with varying number of students, hence varying student-teacher ratio implications. Ultimately, three sessions were completed for each course, totaling nine for the three courses under review. Microsoft Excel was then used to separately analyse these data for each course and bar-charts were used to present results. The researcher was interested in the impact of varying class sizes, hence varying impact of interventions, hence why analysing the classes separately. Also, such important dimensions of SERVQUAL as Empathy (which was the focus of the study) – personalised attention given to students - would manifest directly in varying class sizes.

- Documents

The study utilised Labuschagne's (2003) model by arranging quotations, passages and excerpts (minutes of meetings, and institutional reports) into major themes. Institutional reports analysed included DPO and CTL reports on contact-based lecture service evaluation using SET, whereby the frequency of carrying out the exercise by lecturers (at the supervision of DPO and/or CTL) was established. A theme: *Lecture service quality evaluation frequency* was derived. Minutes of departmental (DBA) meetings were analysed and a theme: *Quality concerns and remedies* was derived.

- The online forums

Im and Chee (2006) define online forum as a qualitative research method whereby specific conversation, facilitated by posting of questions and responses, is carried out on a structured internet platform. The study had initially, through the help of the fieldworker from CTL, set up a special e-mail account (maqebekoane@gmail.com), whereby the researcher would be posting questions to students in the selected courses, regarding how the online teaching and learning would be unfolding. Students had been given the password (M59193013#) to this account. The account had been intended to run for the two semesters, and students would be individually sharing experiences. Saba and McCormick (2001) note that online forums can be administered from six months to three years. The researcher had anticipated that this online forum would be adding to observations he would be making upon each class session. Firstly, students were reluctant to post anything, except to respond to 'general questions' posted by the researcher about the then ongoing teaching and learning. A few weeks later, no responses from students were being obtained, and the researcher abandoned the whole idea of using the online forum. This, the researcher did, despite such benefits as identified by Kollock and Smith (1999) that online forum provides flexibility in participation in the study by both the researcher and respondents.

3.13.2 Quantitative data analysis

Descriptive analysis was done using Microsoft Excel to analyse the quantitative data gathered via the online questionnaire. Plooy-Cilliers, Davis and Bezuidenhout (2014: 75) clarify the purpose of descriptive research as "to describe the characteristics of phenomena, relations between variables or relationships between phenomena as accurately as possible".

Three main areas, *the lecturer*, *teaching and learning activities* and the *classroom environment* in relation to extended marketing mix elements (people, process and physical evidence) and corresponding

SERVQUAL dimensions (empathy, responsiveness and tangible) were assessed on a Likert-like scale. The lecturer was assessed on ten items while both the teaching and learning activities and the classroom environment were each assessed on thirteen items.

Thus, the study sought to establish students' expectations and perceptions of classroom experience in relation to the selected Ps of the marketing mix.

3.14 Ethical consideration

The study adhered to UKZN's guidelines for ethical research in the following way: a gatekeeper letter was obtained from NUL, permitting access to lecturers (in the DBA) and their documents pertinent to teaching quality evaluation. The letter also enabled access to CTL staff and documents relating to evaluation of lecture service quality. The letter also allowed access to students in the selected courses and those in the BCom Association. A copy of the gatekeeper letter is attached as Appendix A, while ethical clearance letter is attached as Appendix H.

All the participants (lecturers, CTL staff and students) signed a consent form ahead of participating in the study. Interviews on Zoom platform, for both lecturers and CTL staff, made it possible to protect participants from being personally identified, on top of they being free to withdraw their participation as and when they feel so, as stipulated in the signed consent forms. Proxy names (for example, O1) were used to identify individual participants, as anonymity was being maintained during interview sessions and subsequent transcription. These proxy names (and pseudonyms in some cases) were used as participants were signing in to join the Zoom meeting. For students in the selected courses, a fieldworker was engaged to administer the survey. The objective was to alley students' fears that the instructor might exercise some power on them and negatively impact their academic performance. Submission of responses through Google Forms ensured anonymity of the students. However, focus group discussions were facilitated by the researcher himself, to obtain deeper insights into the participants' expectations and perceptions, following implementation of interventions.

3.15 Conclusion

The study challenged the status quo of a lack of a culture of measuring the quality of lecture services at NUL (at the time that the study was embarked upon) and using this for service improvement.

The study employed an action research method to assess the researcher's teaching practice as an instructor at one HEI in Lesotho, NUL. Through this approach, the instructor was likely to gain new knowledge pertinent to the classroom activities for the courses he offered, while also improving learning and teaching for students. The study employed a mixed-methods approach in an attempt to develop a context-specific instrument – a measurement tool for the quality of the online classroom experience at NUL, in the context of Lesotho's HE sector.

Online learning has been very recently adopted as a mode of learning at NUL and there has been no research done on this phenomenon in this context. The study could therefore be considered exploratory, and as warranting a qualitative approach to allow for further descriptive studies on same.

The study targeted two groups of students: those registered for the selected courses and those in BCom Association. It also targeted two groups of staff: the teaching staff in DBA and the CTL staff. Students' initial expectations and perceptions of lecture service quality were assessed in relation to the three selected Ps, after which interventions were introduced. The perceptions were then re-assessed, following the interventions. Various data sets were gathered, comprising qualitative and quantitative data. A survey was used to collect quantitative data via an online questionnaire, while the following were used for qualitative data collection: interviews, focus group discussions, observations and document analysis. Microsoft Excel was used to analyse quantitative data, while thematic analysis was used for qualitative data analysis. Results of these analyses are presented and deliberated upon in the next chapter.

CHAPTER FOUR: FINDINGS

4.1 Introduction

The previous chapter presented details on how the study was executed; that is, the research design and approach employed to address the objectives of the study. This chapter presents the findings of the study. The chapter is organised as follows; overview of the participants, findings and conclusion.

4.2 Overview of the participants

As indicated previously, the study's participants comprised students, teaching staff and CTL staff. A brief description of each group follows.

- The students

The student participants can be broken down into two groups, namely, fourth-year students in the three selected courses (182 in total) and BCom Association members (nine in total, of whom six were not registered for the courses), giving a total of 188 students. Sixty-nine percent of those who participated in the survey were females while thirty-one percent were males. In the four focus groups (overall), seventy-three percent comprised female and twenty-seven percent male participants.

- The teaching staff

Of the nine DBA teaching staff, one was a full professor and senior lecturer (in the human resources unit), two were associate professors and senior lecturers (both in the marketing unit), one was a senior lecturer (in the accounting unit) and two were senior lecturers (in the human resources unit and marketing unit, respectively). The other three were lecturers in each of the respective units (i.e. accounting, marketing and human resources). Fifty-six percent of the participants were males and forty-four percent were females.

- The CTL staff

Amongst the five members, one was a director (holding a PhD) and another (in the Continuing Professional Development unit) was a PhD holder, while the other three were degree-holders in the respective units (i.e. Educational Technology unit, Supporting Student Academic Learning unit and Continuing Professional Development unit). There were two females (40%) and three males (60%) in total.

4.3 Findings

The study was an action research case study, involving a series of steps, with the outcome of each step feeding into the planning and implementation of the next. Thus, the findings section has been structured accordingly. The findings are presented step by step, in order to show how the action research process unfolded in a logical fashion. These steps are also aligned with the research objectives of the study, such that it is clear how a given step helps achieve a stated research objective.

4.3.1 PO - To recommend a way of measuring service quality at NUL

Step 1

This step was meant to describe the situation at NUL by exploring why teaching quality measurement was not undertaken at NUL, at the time of embarking on the study. The step was therefore, intended to identify issues/challenges to measuring the quality of the online lecture service in this context. Having identified all the above through this step, the study would then be able to propose a way of measuring lecture service quality at NUL, which was the primary objective of the study.

The following data were collected to achieve the purpose of this step: interview data from the five CTL staff; documents related to teaching quality at NUL; observation data (peer observation of the researcher's online teaching practice). The data were analysed as follows:

- Interviews: thematic analysis was used, whereby themes were developed from the participants' responses
- Documents: The study utilised Labuschagne's (2003) model, by arranging quotations, passages and excerpts of minutes of meetings, institutional reports and newspaper articles related to teaching quality, into major themes.
- Observations: by a colleague in the department (Observation-guide template attached as Appendix The study used Coughlan *et al's*. (2008) definition of observational survey whereby teaching and learning incidents were counted in line with an observation checklist or rating scale.

4.3.1.1 Interview sessions with CTL staff

Two questions pertinent to the objective of this step were asked:

1. What challenges does NUL face in attempting to measure lecture service quality consistently and systematically?

2. What issues arise in terms of measuring lecture service quality regularly?

A theme was developed: 'Challenges faced in measuring lecture service quality at NUL'

Lack of understanding of international and regional standards by academic leaders, lack of understanding of CHE's recommendations on quality, and lack of collaboration amongst units responsible for teaching and learning are the major challenges, as shown by lack of ownership of the process when occasionally undertaken by lecturers. For example, when asked to indicate issues which arise when the process is undertaken, Participant T1 said *"I haven't participated in one",* while Participant M1 said *"A tricky question".* This is exacerbated by claimed lack of commitment and support by NUL management, as Participant M1 indicates *"NUL management should appreciate and support quality assessment initiatives",* while Participant D1 observes that *"Support by NUL management is critical in implementing plans and ideas that CTL has, to provide quality services in CTL, especially teaching quality assessment".*

Lecturers' reluctance to attend workshops on teaching quality issues minimises their participation in the process of assessing lecture service quality. Participant M1 attested to this by saying *"Teaching staff should attend workshops on teaching and learning, particularly because we assume that only teaching staff in the Faculty of Education 'are trained to teach'"*. Participant K1 emphasised the importance of workshops by encouraging attendance of online webinars, affiliation to such global organisations as Quality Matters, Association of African Universities (AAU) and to keep close watch on global trends. He said he attended a workshop hosted by the AAU in 2021.

Participants indicated that the policy on lecture service quality assessment is not monitored, while that on the SET tool is met with dissatisfaction by lecturers; for example, they claim unfairness by students, to unnecessarily impress them during the assessment or to avoid 'victimisation' by the lecturer. Participant N1 noted that the creation of understanding of the SET tool by lecturers is critical. She also said the policy on lecture quality assessment, as well as on the tool, should be re-visited. She said students' feeling of 'victimisation' should be allayed by convincing students on the anonymity of their responses; for example, by using Google forms. Participant D1 observed that lecturers are not familiar with the SET tool and that lecture service quality evaluation should not be a choice for individual lecturers. She asserted that the newly-recruited are not aware of the SET tool. Additionally, she said that the SET tool should be structured

such that it becomes part of teaching and learning rules and regulations; that is, enforcing teaching and learning policy.

Insufficient utilisation of thuto by lecturers hinders monitoring of its effectiveness in the online teaching and learning activity, and also impedes planning on consistent and systematic measurement of lecture service quality by CTL, which is already understaffed. Participant K1 acknowledged this challenge by saying: *"The main challenge is that thuto as the learning management system is not being used consistently and thoroughly, such that teaching staff consider it as a 'lessons tool' instead of a 'resources tool'*". He said this is further complicated by the fact that teaching staff have liberty to use WhatsApp, Zoom and Google Meet inconsistently while thuto provides audios, question-answer and comments platforms, which can be used consistently.

Based on the discussion above, the following challenges/issues arise when attempting to measure lecture service quality at NUL. Firstly, there is lack of recognition of standards (international, regional, and CHE's) by academic leaders, thereby undermining the importance of meeting those. Secondly, different constituents at NUL seem not ready to own the process of assessing teaching quality, including CTL staff, even though they play a critical role of overseeing overall teaching and learning activity, particularly online. Lecturers do not value workshops on teaching and learning, while they may not necessarily have been trained to teach. Thirdly, NUL policy on both teaching and learning and SET is not effective, thereby leaving a leeway for teachers to voluntarily carry out lecture quality assessment; they complain about SET. Of critical importance is that there is no measurement tool/model to measure online lecture service quality at NUL as yet since SET was designed and approved for contact teaching.

In summary, in a series of challenges of measuring lecture quality at NUL, the following are paramount (according to CTL): lack of awareness by academic leaders of standards regarding assessment of lecture service quality, and lack of familiarity by some lecturers with the SET tool itself. Those who are familiar with it are said to complain about it, to the extent that one CTL staff member has started developing another tool, with a clearer set of criteria and standards. Lack of monitoring of the SET tool enables lecturers to refuse to present results sometimes, while some just conduct the exercise for their personal promotion. CTL said lecturers are not aware of CHE's recommendations on issues of quality, and show reluctance in attending workshops organised by CTL on quality assessment issues. Lecturers' failure to use thuto consistently makes it difficult for an already understaffed CTL to gather statistics on thuto, to inform planning and implementation of activities such as consistent and systematic measurement of lecture service

quality. CTL believes needs assessment in terms of gathering people's (lecturers' and students') views on quality assessment, so that they own up the process and the outcome, is the starting point in addressing the quality measurement challenges. The second will be to re-visit policy on lecture quality assessment.

In terms of remedies, CTL believes the following can address these challenges: To seriously consider attendance of online webinars by lecturers, and affiliation to such global organisations as Quality Matters and AAU; and to keep watch of global trends.

Participant M1 said that creating understanding of the SET tool by lecturers is critical. She also said the policy on lecture quality assessment, as well as on the tool itself, should be re-visited. She further said students' feeling of victimisation should be allayed by convincing them on the anonymity of their responses; for example, through using Google Forms.

Another participant (D1) observed: *"We need some kind of needs assessment; we need to gather people's thinking (ideas) through some linking forums on SET tool, so that they own up the process and the outcome".*

On top of the two questions above, which were pertinent to the objective of the step, a broader interview with the CTL staff was carried out to gather background/contextual information, as well as to propose a way of measuring lecture service quality at NUL. Themes that were derived from the broader interviews were:

- How CTL helps NUL benchmark programmes
- How CTL equips lecturers and students for high quality online teaching and learning
- How CTL facilitates lecture service quality evaluation and subsequent dissemination of evaluation results
- Frequency of assessing lecture service quality
- Mechanisms for students and lecturers to report inadequacies of academic services

Each of these is discussed below.

- How CTL helps NUL benchmark programmes

Participants indicated that CTL engages with other universities in benchmarking NUL programmes to ensure high quality; for instance, they have benchmarked their PGDHE programme with one at Rhodes University and another at Wits University in South Africa. Participant N1 indicated: "*Both NUL and CHE benchmark programmes against regional and international institutions".* She elaborated that they also engage in exchanging newly-designed programmes with other universities, while visiting lecturers partake in developing and teaching them. Participant M1 said: "*We also consult stakeholders in the design of programmes, for incorporation of content; we guide and support alignment of programmes, in such areas as curriculum development".*

Based on the above discussion, it can be seen that NUL (on its own, or with CHE, or through CTL), benchmarks its programmes against regional and international institutions. CTL helps incorporate stakeholders' views in designing programmes while it also guides alignment of such programmes with curriculum.

- How CTL equips lecturers and students for high quality online teaching and learning

With regard to lecturers, the CTL participants indicated that they are trained on pedagogical skills, effective teaching, curriculum design, academic writing and counseling. Their research output is also strengthened. They are also trained on thuto (for example, how to use the help menu on thuto), Google Forms and complementary devices, through virtual meetings via Zoom and other platforms at the helpdesk. Participant M1indicated: *"We combine resources as the three units of CTL, to induct newly-recruited academic staff whereby we rely on previous students' views".*

They also train lecturers to construct lessons and assess students, based on pedagogical background. CTL achieves this by collaborating with the library for resources, and even outside NUL. They also administer Turnitin software for plagiarism. CTL also oversees teaching and learning policies. They advise on ideal class sizes, student workload policy and assessment issues through webinar interactions. Participant T1 observed: *"I assist departments for class usage and Zoom application for online classes".* They also make recordings of teaching and learning (online) and make them available on thuto. Participant K1 noted: *"CTL also enables teaching staff access resources offered by regional and global institutions".* They also provide short courses to enhance excellence in teaching and assist teachers in developing teaching portfolios. They also provide workshops on dealing with adult learners. Participant M1 said: *"I conduct workshops to share with teaching staff, students' views on teaching style, hence sheds light on motivating students".* CTL said

they are in the process of developing guidelines for teaching staff and other facilitators, for improvement in online instruction.

For students, they provide psychosocial and personal support, and also study skills, academic learning, motivation and management of their studies. They also facilitate attachment of students to industry. Since 2022, they have introduced to students, free online courses offered by different institutions, which might help them improve academic performance at NUL. They encourage and issue certificates to students who help others in tutorial sessions. At the beginning of the academic year, they conduct workshops with the Director for Student Affairs (DSA), Student Representative Council (SRC) and Student Electoral Body (SEB) and network providing company (Econet Telecom Lesotho) to reveal an array of services they offer at CTL, in view of supporting students. They provide academic skills in terms of ability to write, read and take notes in class or library; students are also equipped on the use of discussion forums on thuto. Participant M1 said: *"We create rapport with students, such that students also use communication on thuto and WhatsApp to seek help from my office".* Participant D1indicated: *"We equip students with time management and exploring their learning experiences".*

Based on the foregoing discussion, CTL plays a pivotal role in equipping both new and old teaching staff by enhancing lecturers' capability to effectively carry out their task by helping them develop teaching portfolios, run assessments and increase their research output. CTL also helps them align with general teaching and learning policy, and are currently working on an online instruction policy. Technically, they respond to thuto challenges experienced by teachers, while they provide recordings done during teaching and learning. Their short course (PGDHE) further enhances lecturers' capacity.

CTL provides academic skills to help students manage their studies, and psychological and personal support. They facilitate students' attachment to industry, and encourage them help others in tutorial sessions by awarding certificates. They also help students access free online courses which help them do better at NUL. In general, they help students explore learning experiences.

- How CTL facilitates lecture service quality evaluation and subsequent dissemination of evaluation results

The CTL participants said that although there is a Senate-approved SET tool, which they (CTL) should align with in order to meet CHE's institutional audits, there are challenges with the tool. Participant D1 said: *"We conduct pre-delivery assessment; that is, before students come; during the study period, we*

conduct anonymous survey, to curb problems; Senate-approved SET tool". CTL acknowledges the existence of policy on the SET tool, but says faculties occasionally instead request Google Forms to use for lecture assessments. They run workshops on evaluation forms, during which they provide a procedure to follow for students to assess lecture service quality. They said international quality scorecards come in handy in such instances. Participant N1 elaborated: "*CTL initiates the evaluation process by offering training sessions of teaching staff on 'Start-Stop-Continue' tool, whereby 'Start' accommodates student suggestions at the beginning of the course, 'Stop' dictates that a lecturer should stop doing what is not desirable to students during the academic session, 'Continue' dictates that lecturers should continue doing what is desirable to students*". She said 'Start' involves giving suggestion-forms two weeks into the academic year, while 'Continue' involves giving them SET forms at the end of the course. Participant T1 observed: "*A faculty or a lecturer approaches CTL, to evaluate their teaching, then CTL assists by giving them tools online*".

CTL said it is aware that some teaching staff occasionally conduct lecture service quality evaluation on their own, and CTL may assist upon the lecturer's request or simply document the exercise, in such instances.

CTL does not ensure effective dissemination of evaluation outcome to recipients, particularly students; it sometimes simply documents the exercise as a lecturer does it on his/her own, or the Director (CTL) forwards results to departments or faculties (if CTL was directly involved in the exercise).

CTL facilitates the lecture service quality evaluation exercise, although it meets challenges regarding both the appropriate tool to be consistently and systematically used and implementation of the SET tool approved by Senate. They said while the evaluation has to be done to meet CHE's institutional audits, amongst other requirements, enforcement is so low that lecturers conduct it on an *ad hoc* basis (sometimes using their own survey instruments). Various 'tools' used (such as Google Forms, international scorecards, 'Start-Stop-Continue') exacerbate the inconsistency, while the policy on the SET tool is also not monitored. CTL uses various platforms to disseminate quality assessment results, including the Director sharing with departments and faculties, staff disseminating by means of workshops, meetings and communication through e-mail and Google Forms. CTL concedes that they do not disseminate the results effectively. Participant D1 indicated: "*A collective report (though there are individual reports) is prepared but not given back to students".*

- Frequency of assessing lecture service quality

CTL stated that departments and faculties fail to adhere to the Quality Assurance policy in assessing quality, but that CTL does it every month for their PGDHE programme. They say CHE guidelines are also there to guide the frequency of the evaluation. Participant D1said: *"Post COVID-19, it has not been used consistently, for example; it should be done at the end of a semester but it hasn't since then; lecturers are sometimes assessed for promotion whereby students assess them".* Participant M1 indicated: *"Very rarely, except with dedicated individual teaching staff".* CTL said faculties and departments fail to adhere to the programme review policy; hence, it becomes more challenging to observe that which guides lecture service quality evaluation.

Regarding frequency of assessing lecture service quality, CTL seems to be unsure of how often the exercise should be conducted; at one point they mention adherence to Quality Assurance policy, at another they talk of CHE guidelines, while they are now silent about policy on the SET tool (which they indicate is Senate-approved).

- Mechanisms for students and lecturers to report inadequacies of academic services

Students report through posting on thuto or via e-mail, while lecturers occasionally write to the Director CTL. Deans, faculty quality control personnel and tutors, as claimed by one participant, take charge of the complaints. Participant T1 said: *"I don't know of such, but that a policy is being drafted for students to report on lecturers, but students report to me directly".*

Regarding inadequacies of academic services being reported to CTL, there is no clear mechanism at hand; some CTL staff say students report to them directly; some say they post on thuto, while others say deans and tutors take charge. One staff member said the policy is just being drafted for students to report on lecturers.

4.3.1.2 Document analysis of teaching quality-related documents

The objective of carrying out document analysis was to gather background/contextual information and to propose a way of measuring lecture service quality at NUL. Minutes of meetings, institutional reports and newspaper articles on teaching quality at NUL were the main documents analysed. Themes were developed as follows:

Theme: 'Teaching quality concerns and remedies'

- Minutes of meetings

The Head of DBA, in addressing the Departmental meeting on 7 July 2008, under the agenda item 'Quality Control Mechanisms', voiced the need to enhance quality control measures to maintain quality standards. Deliberations on the issue pointed to the importance of pitching standards as well as consistent monitoring of teaching quality by lecturers and other relevant bodies. However, no specific tool/model was mentioned.

Based on the discussion, it can be seen that the lecturers themselves do acknowledge the problem with teaching quality. They suggested adherence to standards, probably international, regional and those dictated by CHE. They did not suggest a specific tool to measure lecture service quality, probably because SET was only introduced in 2014.

- Newspaper article

In March 2018, the local newspaper, *Public Eye*, available in the library archives section at NUL, carried the following article: 'Slipping standards at NUL under close scrutiny'. The article indicated the nation's concern on the quality of both tuition and graduates of NUL. It urged government authorities to ensure that this public institution provides the nation with high-quality caliber workforce. By 2018, the concern on the quality of both tuition and graduates had reached the public domain. This, despite the existence of SET since 2014. Government's intervention was the last hope of the nation to re-claim NUL glories on tuition quality and esteemed graduates.

- Institutional reports

The researcher examined reports on lecture service quality evaluation piloted by CTL and the Development Planning Office (DPO) in the academic year 2014/2015, using the SET tool. While the pilot study results were not subsequently shared with the concerned lecturers, the tool had specifically been designed for contact teaching and could not be readily applied in the online setting.

The major observation by the researcher on SET was that it had not demarcated important areas/issues as far as teaching and learning is involved; it had simply gathered students' experiences with the lecturer's behaviour in teaching a given course. This might have left room for students to rather assess the 'general behaviour' of the lecturer in teaching the course, instead of assessing how he/she interacts with students during the teaching activity, (which might be more relevant to their experiences). The tool also does not cover critical factors/issues that affect students' experiences with the course; for example, there is nothing

about teaching aids being used by the lecturer. Thus, according to the tool, teaching 'takes place in a vacuum'.

Based on these observations, SET had serious flaws that could limit its effectiveness in painting a useful picture of lecture service quality at NUL, for contact teaching, as perceived by students. Therefore, the contents of this instrument did not influence or play any part in the researcher's effort to develop a measurement tool for online teaching quality at NUL.

4.3.1.3 Observations by a colleague in the department (DBA)

The findings of each of the three observation sessions per course are presented separately, the reason being that each observation session contained students from one course, namely, Strategic Management (with 139 students in total), Integrated Marketing Communications (with 22 students in total) and Services Marketing (with 21 students in total). The researcher was interested in establishing, amongst other things, whether class size might have had an impact on how the researcher would have carried out the teaching activity (as observed by the colleague).

Figure 4.1 portrays the three-time observation results in the Strategic Management online class

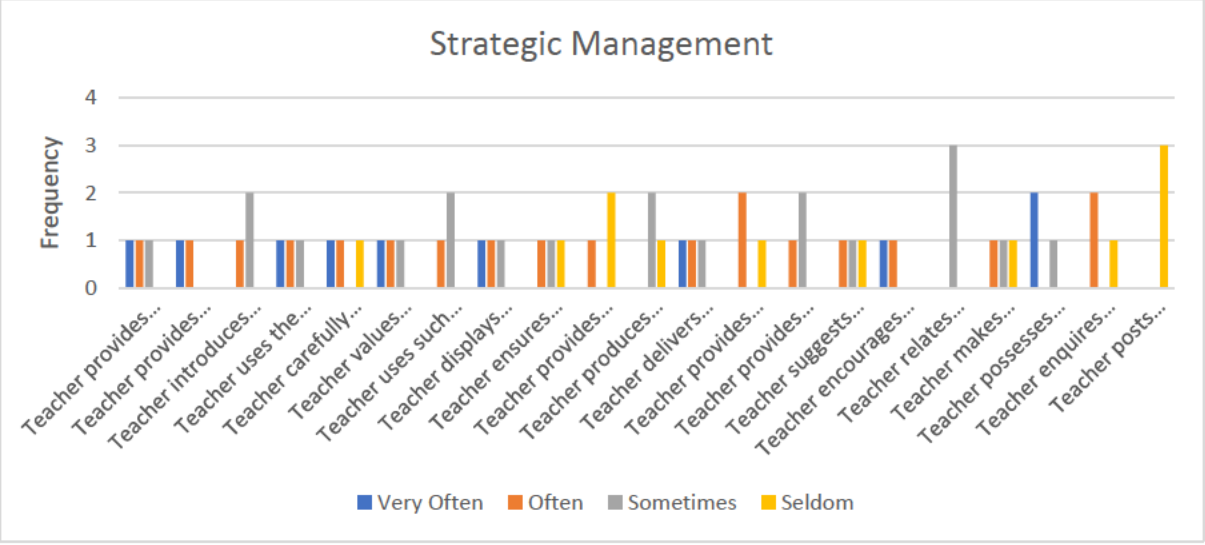

Figure 4.1: Strategic Management class observation results

Notable results on the 21 items include the following; three-time *very often*, *often* and *sometimes* observation of the teacher providing essence of high-quality virtual classroom experience, depicting a high level of inconsistency; from *very often* to *sometimes*. This largely has very little to do with the size of the class. Another notable result is that of the teacher *sometimes* relating online classroom discussions to social matters. This is worrisome since some social matters such as topical quality of online tuition countrywide or regionally may be impacting on student academic life experiences. The last notable result is that of the teacher *seldom* posting expectations for discussions for the next lecture. This is critical as it hampers students' level of preparation for the next class. It may as well discourage attendance.

Figure 4.2 portrays the three-time observation results in the Integrated Marketing Communicaitons online class

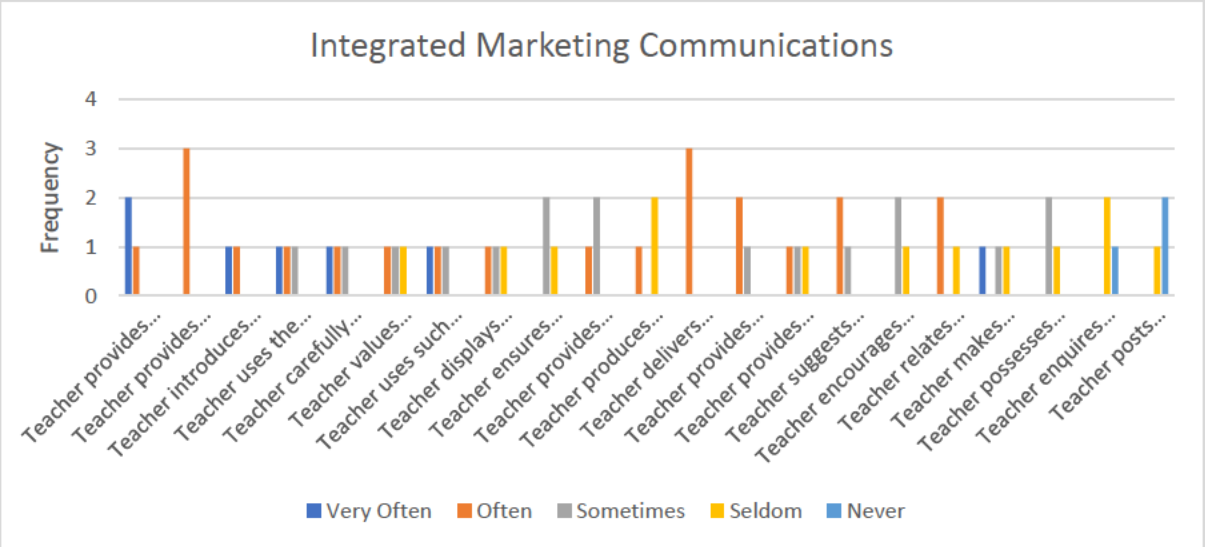

Figure 4.2: Integrated Marketing Communications class observation results

Notable results here include the *often* situation of the teacher providing situations for the introduction of the lesson. This might include relating the present lesson to the past one, thereby recapping on important concepts which link to the current discussion. Another notable result is the often situation whereby the teacher delivers online sessions, uploads materials and conducts online assessments in line with known class schedules. The three-time *often* occurrences might be attributable to a small size of the class (22) whereby online assessments become quite manageable, amongst other factors. However, the *never* situation

regarding the teacher posting expectations for discussions for the next lecture, cannot be accounted for in respect of class size. It is a detrimental as in any other size of class.

Figure 4.3 portrays the three-time observation results in the Services Marketing online class

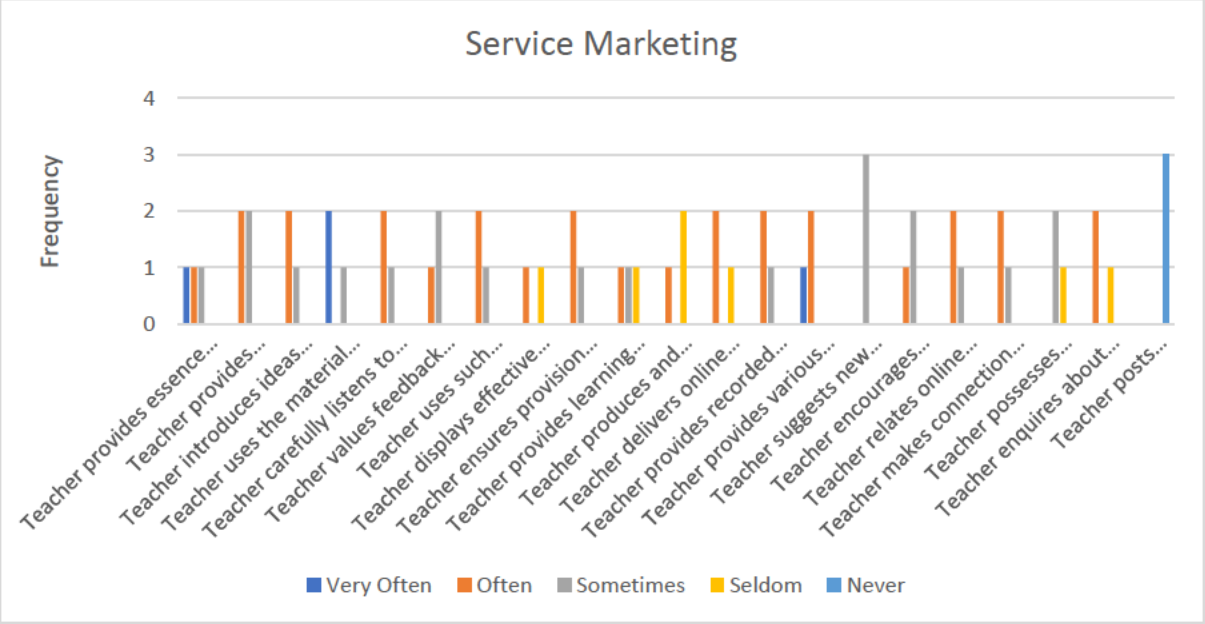

Figure 4.3: Services Marketing class observation results

Notable results here include the three-time *sometimes* situation of the teacher suggesting new things to look and try, to encourage further experimentation and thinking. This might include informal business idea incubation hubs that BCom students occasionally run on campus, as well as business advisory services they occasionally provide for a fee to the small-holder business communities around the main campus in Roma. The teacher usually encourages student involvement in such initiatives. Another notable result is the three-time *never* situation of the teacher posting expectations for discussions for the next lecture. This is the same pattern for a difference of one student (21) as compared to the previous course. This says the teacher has been weakest in this regard, irrespective of the class size.

In summary, all three data sources (CTL, documents and observations) do shed light on challenges in consistently and systematically measuring lecture service quality at NUL, with CTL largely blaming concerned parties' lack of commitment to the process, as well as lack of clear policy on the process. The peer observer fears that students' attendance is likely to impede the process or give a deceptive outcome.

Institutional documents (at NUL) simply acknowledge the importance of monitoring teaching quality but do not put in place mechanisms (apart from 'ineffective' policies) to ensure its monitoring. Newspapers, on the other hand, simply blow the issue of NUL's tuition quality and its graduates out of proportion by showing that it is the nation's concern, which can only be redressed through the government's intervention.

Since CTL staff simply oversee (and are not directly involved in) the teaching and learning activity, the next step was to obtain input on important service quality dimensions from student and staff participants.

4.3.2 RO1 - To identify what undergraduate students and lecturers at NUL expect and perceive in terms of online lecture service quality

Step 2

This step pursued part of the research objective (RO1) related to understanding what undergraduate students at NUL expect and perceive in terms of lecture service quality. This also partly linked to the primary objective (PO): To propose a way of measuring lecture service quality at NUL.

The step intended to obtain student and staff input on important service quality dimensions, with primary focus on the selected three Ps, to help inform the selection/modification of a service quality measurement instrument for use at NUL.

- **To obtain student/staff input on important service quality dimensions, with primary focus on the selected three Ps**

To achieve this purpose, a focus group discussion was held with BCom Association students, who provided input on how *people* (specifically student-lecturer interaction), *process* (specifically lecture service production process) and *physical evidence* (specifically technological infrastructure aiding teaching and learning) affect lecture service quality. Since BCom Association members represent all BCom students, they are aware of issues that students may have with teaching and learning. They are also likely to speak more openly as they do regularly engage with lecturers on course matters. Apart from that, they are quite aware of the situation relating to lecture service quality evaluation in the Department of Business Administration, since many were also students in the selected courses under focus.

Firstly, participants were asked to opine on a 'high quality' virtual classroom experience, that is, a high-quality online lecture service. Participant FG1 specified use of visual demonstration and video engagement

as enabling a high-quality online lecture service. Participant FG3 said: "*More on student satisfaction and good performance, and student satisfaction matters most – we consider such as a high quality".*

With regard to virtual interaction between students and teaching staff (representing *people*), participants considered 'high quality' interaction in the following way. Participant FG1 said *"There should be some video interaction, explaining more on notes and material"*, while Participant FG7 noted that *"There should be assessment of students, to see whether they understand"*. Participant FG2 observed *"A platform being convenient for teachers and students, for students to discuss material provided; it should be done more often"*. Participant FG3 specified that: *"NUL thuto platform is not convenient at all; connectivity is challenging – it's not convenient"*, while Participant FG5 said: *"No interaction at all on thuto".*

In terms of the interaction meeting participants' understanding of 'high-quality' online interaction, participants expressed their views this way: Participant FG2 said *"It doesn't, to a large extent".*

Another aspect related to the interaction (between students and staff) is the student-teacher ratio. Participants expressed their views in the following ways, when asked about the effect of increasing enrolment at NUL, on online lecture service quality, considering the current student-teacher ratio in the specified courses. Participant FG4 observed: *"It can be a big disaster – the student-teacher ratio at NUL is really bad; the teacher can't analyse how many students grasped the content".* Participant FG1 added that: *"The teacher can't track every student – they can't manage students".* Participant FG3 noted: *"We are likely to have bad experience".*

Based on the responses, participants were not pleased with the way virtual interaction between students and staff takes place, inclusive of thuto as the learning management system. They also blame the student-teacher ratio, which makes it difficult for teachers to manage students. They fear that their learning experience is negatively impacted by this ratio.

With regard to the online lecture service production process (representing *process*), participants were asked what they consider to constitute 'high quality'. They expressed their dissatisfaction regarding how the process unfolds, with Participant FG2 saying: *"Exceeding students' expectations – online should exceed students' expectations; for example, Zoom meeting be considered by a lecturer – lecturers consider thuto only"*. Participant FG3 observed: "*We should have interface that is easy to use – teachers are not ready for e-book concept".*

A related question was whether this process (of lecture service production) is interactive enough, as participants expect, as far as co-production of the online lecture service by a lecturer and students is concerned. Participant FG1said that it will help if previous lectures are considered. This shows that lecturers may not be incorporating or relating previous lectures to the current ones as they deliver lectures.

Another question related to lecture service production process was the participants' perception of the instructional practices, student workload, assessment, and feedback to students, in terms of whether they meet their expectations. Participants seemed dissatisfied with instructional practices carried out by lecturers. Regarding expectations, Participant FG2 said: *"They don't",* meaning that their expectations are not met during the production of lecture services. While they were moderately fine with student workload, they complained about discussion of feedback: "*Assessments on thuto; we don't interact on chatroom for feedback*", said Participant FG1.

Regarding assessment, participants voiced their worries in terms of its fairness, with Participant FG2 saying: "*At NUL, we are likely to be assessed unfairly, online*". Participant FG4 elaborated: "*In some universities, assessors are not the ones having taught; thus, need to hire assessors and markers at NUL".*

Based on the responses about the lecture service production process, participants complain that other platforms such as Zoom, should be used, on top of thuto. Lecturers should also embrace the concept of e-books. Participants also observe that the process is not as interactive as they would expect. Participants also perceive unfairness in the assessment while they lament the lack of a discussion platform for feedback, since it is not discussed once disseminated. Participants are as well not satisfied with instructional practices employed by the lecturers. They are however, satisfied with the way lecturers spread workload for students.

With regard to the physical evidence of the online teaching process, participants were asked what they would consider to constitute 'high quality'. Participants consider a high-quality physical evidence as that which "*allows students have easy access to course-related material"* (Participant FG4) and *"to continue learning online and by providing guidance to access additional material; for example, videotape"* (Participant FG8). Participant FG8 continued: "*To have multiple communication channels, so that students have choice*", with Participant FG9 giving an example that: *"Lecturers should post more announcements, in diverse platforms".*

Participant FG2 noted: "*The more programmes are increased, the more we need lecturers, otherwise lecturers become less effective – pressure on students or resultant failure*".

Participants also voiced an array of complaints about the physical evidence, the first being about the learning management system used at NUL, thuto, with Participant FG3 saying that: "*Thuto is not satisfying students and performance is deteriorating".* Participant FG1 noted: "*In thuto, we only chat through writing".*

Another complaint related to course material, with Participant FG3 complaining*: "We can't find relevant content sometimes".* Participant FG4 added: "*Lecturers simply send some slides and that's all"*. Participant FG7 corroborated: "*No platform for discussion of material provided"; lecturers were only interested in the assessment of the students – no verification of capturing of content"*. "*That promoted copying".* Participant FG1 observed that: "*Lecturers shouldn't just upload material but be ready to entertain queries"*, while Participant FG7 added: "*All they do is to post past questions*". Participant FG4 weighed in: *"Most of the time, they (lecturers) tell us to discuss questions amongst ourselves on chatroom".*

There was also dissatisfaction about the quality of course material and their presentation, with Participant FG1 saying: "*The course materials are of low quality - they are not dynamic*", while Participant FG8 complained that: "*Lecturers' presentations are not effective*".

A related question to physical evidence was whether the quality of such teaching materials as handouts meet participants' expectations. Participant FG7 noted: "*They do – we are able to raise questions*". A few other participants acknowledged that handouts facilitate their learning.

Another related question was whether the reliability and functionality of the online teaching infrastructure meets participants' expectations in facilitating teaching and learning. Participant FG3 observed: "*It does facilitate it – we are able to access the updated material, even when we are off-line"*. Participant FG8 added: "*Yes, to some extent, but there is need to improve thuto infrastructure in general, and server".*

One other related question was whether the quality of such communication tools as thuto drop box and chatroom, which the lecturer uses occasionally, matches participants' expectations. Participant FG1 noted: "*Chatroom is not effective – no lecturer present; we talk to ourselves!"* Participant FG8 added: "*Yes, to*

some extent, but change the thuto server, add more applications that work in line with thuto; for example, Google Classrooms".

The last related question was whether the virtual classroom set-up, in terms of accessibility, facilitates online teaching and learning. Participant FG6 observed: "*To some extent, for example, lecturers, through Zoom (unlike thuto), should observe attendance*". Participant FG7 added: "*It should allow use of WhatsApp although some lecturers tell us they don't use WhatsApp (with students).*"

Based on the responses, it can be seen that participants value easy access to updated course (and additional) material. They encourage use of various communication channels to make announcements and disseminate other course-related issues/material. They caution that increases in programmes should be matched with a corresponding increase in the number of lecturers, to avoid their ineffectiveness or possible failure by students. Thuto is not perceived to be effective, with specific reference to its server (hence reliability and functionality), as well as the chatroom allowing writing only. Lecturers upload material but are not ready for their discussion; students resort to copying in such instances. Handouts provided by lecturers facilitate students' performance. Students prefer a classroom setup that accommodates other devices such as WhatsApp, with which they are more familiar.

- **To select or modify a service quality measurement instrument for use at NUL**

Following student input outlined above, staff input was also gathered by conducting interviews with the teaching staff in the Department of Business Administration (DBA). The purpose was, firstly, to understand lecturers' expectations and perceptions of lecture service quality at NUL; secondly, to propose a way of measuring lecture service quality at NUL. Data was analysed through thematic analysis, following Anderson's (2007) model (as set out in Chapter Three). Themes that were identified were:

- Lecturers' understanding of online classroom experience/online lecture service, 'high quality' virtual interaction between students and teaching staff and DBA's contribution to 'high quality' virtual interaction between students and teaching staff

- Frequency of facilitating evaluation of online lecture service quality at NUL

- Students' preparedness and participation in online class discussion and lecturers' perception on students' ability to present, express and defend ideas, and reflect on problems during online classroom activities
- How lecturers give feedback to students
- How lecturers interact with professionals from the industry in class-related issues
- Lecturers' perception on constitution of 'high quality' online lecture service production process and how DBA facilitates 'high quality' online lecture service production process
- How CTL equips lecturers through technical assistance related to online teaching methods
- Lecturers' perception of current student-teacher ratio and its impact on quality of online lecture services and how ideal the teaching aids in lecturer's control are for his/her courses
- The lecturer's perception about students' academic writing style and what DBA can do to improve the quality of the lecture service production process
- Amount of time for students in class as against self-learning and students' ability to engage in courses in online class, their enquires and subsequent consultations
- What lecturers consider constitution of 'high quality' physical evidence of the online teaching process and the extent to which physical evidence in DBA meets the lecturers' understanding of 'high quality' - what DBA can do to improve quality of physical evidence
- The frequency and best way to assess the quality of online lecture services at NUL and responsible personnel
- Other issues added, apart from those covered

These themes are discussed below.

- Lecturers' understanding of online classroom experience/online lecture service, 'high quality' virtual interaction between students and teaching staff and DBA's contribution to 'high quality' virtual interaction between students and teaching staff

The lecturers understood the online classroom experience/lecture service as being a two-way interaction whereby students 'see' the lecturer delivering and imparting knowledge through various learner-focused

platforms such as videos, PowerPoint, audios, Zoom, LinkedIn and WhatsApp, on top of thuto. Students then freely engage and ask questions. It is a situation whereby students learn new material and feel the real experience of a one-on-one situation with the lecturer and amongst themselves. Participant M1 specified her understanding of the 'high quality' interaction between students and teaching staff as follows: *"That allows interaction – not one-way information sent – such that a learner cannot interact". "That is, rather than dumping notes, the learner must see you in a picture form and write as you speak".*

Regarding 'high quality' virtual interaction between students and teaching staff, lecturers said it is a situation whereby various methods which allow students' participation are used (for example, group discussion in class), where students and lecturers freely and frequently engage, challenge and interrogate the material. It is a situation whereby students contribute as the delivery meets their needs; for instance, questions being instantly responded to – through Zoom, for example. Participant M1 explained: *"Where we use methods that allow students' participation; for example, group discussion in class – well prepared lectures invite discussion"*. Participant M2 added: *"When students and lecturers can access the material and engage each other frequently and freely and interrogate the material".*

Concerning DBA's contribution to 'high quality' virtual interaction between students and teaching staff, the lecturers indicated that DBA is challenged in terms of facilitating high quality virtual interaction, partly due to poor Information Communication Technology (ICT) infrastructure and also due to underutilisation of current resources (for example, thuto not being fully utilised). Participant M3 attested: *"We don't try all available options; for example, discussion platforms on thuto, audios, slides".* Participant O1 added that students' feedback shows that students observe some lecturers simply uploading material and disappearing - no virtual interaction.

Based on the discussion above, lecturers consider online classroom experience/online lecture service as a one-on-one situation (no different from physical presence) whereby various learner-focused methods and platforms are used, while students actively participate to acquire new material and knowledge. With regard to lecturers' understanding of 'high quality' virtual interaction between students and teaching staff, they consider this to be a situation whereby the lecture (in terms of material, interrogating the material on various platforms) meets students' needs – students are on board in terms of freely and frequently participating and their queries are instantly responded to. Regarding DBA's contribution to 'high quality' virtual interaction between students and teaching staff, the general view is that DBA is not doing enough; for instance, lecturers do not fully utilise what thuto readily offers such as discussion forums, while students complain that some lecturers simply upload material and disappear – there is no virtual interaction.

- Frequency of facilitating evaluation of online lecture service quality at NUL

Regarding frequency of evaluating lecture service quality, in line with the lack of an institutional system of regular, formal student evaluation of teaching at NUL, the lecturers indicated that their online teaching was not being formally evaluated by students. However, some lecturers took the initiative to solicit informal feedback; for example, they asked students about their challenges with online learning. Participant M02 said: *"I only ask them verbally (informally) because NUL doesn't have an online evaluation tool to guide us"*. Participant K1 added: *"Not really done at NUL, but I as a person, haven't done it online but onsite"*, while only one, Participant O1, admitted: *"I did it frequently, but students said online teaching at NUL is not effective, hence students lost interest".*

Lecturers said onsite lecture service quality evaluation was only once piloted while online lecture service quality had not been evaluated at all. Participant M2 indicated: *"I don't think it is happening; my last hearing was about CTL, which never shared the template with the lecturer". "It is not good; it should include instructors"*. Participant M02 stated that maybe thuto administrators are doing the evaluation (on their own), while Participant K1 said there is no policy (to his knowledge) to that effect.

Based on these findings, regarding lecture service quality evaluation at NUL, lecturers strongly believe it does not happen (with the exception of the onsite lecture service quality evaluation, which was once piloted although results were not shared). With regard to the frequency of lecturers facilitating online lecture service quality evaluation by students, lecturers do not facilitate it at all, with one claiming that NUL does not have an online evaluation tool to guide them while another said he stopped it because students said online teaching at NUL is not effective.

- Students' preparedness and participation in online class discussion and lecturers' perceptions of students' ability to present, express and defend ideas, and reflect on problems during online classroom activities

With regard to students' preparedness and participation in online class discussion, lecturers said that students do not prepare ahead of lectures, or do not attend, or log in and then disappear. Participant M2 observed: *"I don't think they prepare anything; they get material; they just log in and then disappear; no responses to questions online – they don't see it necessary since they're not forced".* Participant T1 attributed some of these problems to thuto, asserting that it does not allow for practical discussions – only a chat platform, which allows input via writing only. Participant M02 showed the 'condition' for preparation and participation: *"They do prepare ahead if I give them PowerPoint slides; for example, group A answers*

question A, etc; I take attendance record as they log on WhatsApp group; they write their true names; I check through NUL register; there is room for faking; they might log in for 10 minutes then leave".

Concerning lecturers' perceptions of students' ability to present, express and defend ideas, and reflect on problems during online classroom activities, lecturers indicated that students were not taught to participate in online classroom activities; also, due to the lack of interactivity capability on the learning management platform (thuto), lecturers only post material and students simply read. Only one, Participant M02, indicated: *"They are moderately doing it – they have little confidence to talk; it's a little bit better"; "I encourage them to use audios, which comes in handy at workplace".* Participant K1 said unless he stimulates debates himself, students do not participate, while another Participant, M2, observed: *"There is room for improvement as it doesn't happen often, but it's joyful when it happens".*

Based on the above discussion, on the issue of students preparing ahead of online class and their participation in class, lecturers said students do not prepare ahead, hardly attend or simply log in and disappear. They said this is shown by lack of response to questions posted on thuto. One lecturer said she 'forces' them to prepare ahead and partake in class discussion by giving them PowerPoint slides ahead, along with questions to be presented in class in groups, while she takes attendance record (for which there is room for faking). She said they might as well leave immediately after presentations.

Reduction of class sizes (thereby increasing interaction) by DBA, preparation of material in an easy and understandable manner and use of blended teaching and learning strategy were some of the remedies suggested by the lecturers.

Regarding students' ability to present, express and defend ideas, stimulate debates, themes and dialogue, and reflect on problems during online classroom activities, lecturers say it is far below expectation, attributing the deficiency partly to students not being trained in participating in online classroom and also on thuto's lack of interactivity. One lecturer said unless he stimulates debates himself, students do not participate, while another said they are moderately doing it with little confidence to talk, and is joyful when it happens.

- How lecturers give feedback to students

Lecturers said they use electronic grading, summaries, model answers and communicate via both thuto and WhatsApp.

Participant M02 indicated: *"I use electronic grading for multiple choice questions and then make comments for other online submissions".* Participant M3 uses summary form: "*I normally give a separate feedback in a summary form for each question, in notes form – in paragraphs*", while Participant K1 said he uses 'track-changes' to grade essays since thuto electronically grades multiple choice questions only. Explaining her mode of giving feedback, Participant A1 stated: "*I place comments on both thuto and WhatsApp".*

It can be seen that, in assessing students, electronic grading seems to work for multiple choice questions only and lecturers supplement this electronic grading by preparing summaries, using 'track-change' device and WhatsApp.

- How lecturers interact with professionals from the industry in class-related issues

Participant O1 said that the online teaching and learning platform does not allow such interaction; for example, no video facilities like YouTube, while Participant M2 observed*: "Yes, I do, but not enabled by DBA; I do from different universities, on my own initiative; I have been using my own social networks"*. Participant M02 corroborated this: *"I had a schedule last year, but managed to host on Zoom – a rewarding experience for me and learners; my challenge was to mute everyone"; "I plan to have more guest-lecturers for my learners".*

Regarding interaction of lecturers with professionals from the industry in class-related issues, lecturers said lack of facilities such as YouTube hampers the process. One lecturer said he resorts to using his own social networks, while another said she managed to host one on Zoom and that learners felt it rewarding.

- Lecturers' perceptions of the constitution of 'high quality' online lecture service production process and how DBA facilitates 'high quality' online lecture service production process

With regard to their perceptions of the constitution of a 'high quality' online lecture service production process, the lecturers' view was that lecturers should prepare clear lecture material and provide additional material to learners, which should be available anytime, to meet online requirements. To emphasise availability anytime, Participant M2 indicated: *"Social media platforms that students are already using may be utilised, in conjunction with thuto features; for example, audio, visuals, PowerPoint, etc"*.

Lecturers said there should be protocol in terms of online lecture service delivery; that is, standards should be set and pitched, and then students should be enticed to reflect back on their learning by preparing self-

reflection questions. Inclusion of varying modes of teaching, for example, recent research, should be used for preparation.

With respect to how DBA facilitates 'high quality' online lecture service production process, lecturers said DBA has room to improve; for example, in terms of ensuring consistency in moderating course outlines at the beginning of the academic year. Another participant, O1, 'blamed' DBA in this aspect: *"Not at all; there is no-one to check individual's materials for conformity; no guidelines in preparing material". "No DBA's format – no standardised guidelines".* Participant M2 said: *"It depends on the individual lecturers – we don't share delivery of online lectures – lecturers teach from home – the distance killed the spirit of sharing".* Another participant, K1, said: *"It doesn't; ranking it on a scale of 1-10, I will give it 4". "Lecturers are trying but infrastructure hinders it; for example, software". "The lecturers also are not adequately trained".*

In relation to lecturers' perception of what constitutes 'high quality' online lecture service production, lecturers emphasised the preparation of clear lecture material, their timely availability and a protocol on online lecture service delivery. They said this will ensure that standards are set and pitched. Varying modes of teaching were also identified as critical for lecture service preparation; for example, using recent research. In respect of DBA facilitating a high-quality online lecture service production process, lecturers said that there are weaknesses which DBA can address; for example, there is no consistency in moderating course outlines, no checking of materials for conformity (to online setting), no 'DBA format' (standardised guidelines), while lecturers are not adequately trained.

- How CTL equips lecturers through technical assistance related to online teaching methods

Lecturers appreciate that CTL equips them, but indicate that this was on standard and not technical aspects, while teaching differs with area of specialisation; for example, accounting as against marketing**.** Participant O1 observed: *"They tried but not to my expectation – no technical but general assistance".*

With regard to CTL equipping lecturers, they (lecturers) complain that CTL only provides standard and not technical guidance, even though courses differ (in terms of delivery, in particular, and assessment).

- Lecturers' perceptions of current student-teacher ratio and its impact on quality of online lecture services, and how ideal the teaching aids in lecturer's control are for his/her courses

Concerning lecturers' perceptions of the current student-teacher ratio and its impact on the quality of online lecture services, lecturers said that the ratio is overbearing. For example, Participant O1 stated that his student-teacher ratio was 100:1 in year four, which makes the sharing of class-related information quite challenging, thereby impacting negatively on quality. Participant T1 indicated that, with large classes logging in at the same time, the system becomes fragile, impeding quality delivery. They said assessment also becomes a problem – it is compromised.

On the issue of how ideal the teaching aids under the lecturer's control are for his/her courses (which also, is affected by the student-teacher ratio), participants said it depends on the method of teaching. For example, they said that there should be special laboratories for online sessions and, since this is not the case, teaching aids fall short. They gave an example of the unavailability of YouTube. Participant M2 was moderate on the issue as he said: *"60% yes; we have faculty librarian and articles that I share with students"*, while participant K1 flatly questioned their adequacy: *"The infrastructure doesn't allow effective online teaching and learning; computers, Wi-Fi, are insufficient".*

The current student-teacher ratio is perceived to be too high by lecturers, especially for the online teaching and learning setting whereby all students log in at the same time. Lecturers say the system is overburdened, sharing information on class-related issues is complicated, delivery of quality is compromised, while assessment becomes challenging. They unanimously conclude that, in the final analysis, the quality of online lecture services is seriously compromised.

In terms of teaching aids under the lecturers' control, there was no agreement as some said they are adequate (giving examples of the faculty librarian and articles readily available) while others said they are seriously lacking (for example, laboratories), especially for online sessions.

- The lecturers' perceptions of students' academic writing style and what DBA can do to improve the quality of the lecture service production process

With respect to the lecturers' perceptions of students' academic writing style, lecturers observed that the English language is a problem for most students, with technical aspects such as quoting, referencing, citing and organising ideas being a big challenge. Lecturers also felt that the foundation in year one is falling, but better in 4th year than 3rd and 2nd years. Participant M1 indicated: "*It still needs a lot of our attention as lecturers*".

With respect to what DBA can do to improve the quality of the lecture service production process, participants emphasised orientation for new members on high quality lecture service production, especially for online consumption, and attachment to mentors, while they also need to have sufficient resources such as laptops. There should be a protocol in terms of online standards, a uniform guideline for material production and teaching. A learner-focused approach should be adopted, whereby learners are asked how they want online teaching and learning packaged. The student-teacher ratio should be worked on. Bandwidth should be increased for 'same-time usage', for example, during tests and examinations.

Considering writing style, lecturers admit that students have a serious problem with English language, especially in early classes (years one and two) while technical aspects such as quoting, referencing, citing and organising ideas challenge those in higher levels (years three and four).

In respect of what DBA can do to improve the quality of the lecture service production process, lecturers said there should be a protocol in terms of standards; that is, a uniform guideline for material production and teaching. They also said a learner-focused approach, whereby students are asked how they want online teaching and learning packaged, can help improve quality of lecture service production. Student-teacher ratio management may also ease interaction and enhance quality of assessments.

- Amount of time for students in class as against self-learning, and students' ability to engage in online classes, their enquiries and subsequent consultations

With regard to the amount of time students spend in class as against self-learning, Participant M1 noted that their classes are too packed, thereby forcing students to be in class for most of the time; also, that they are not self-driven. Another participant O1, charged: *"They don't come to class when scheduled, yet not engaged in self-learning – the same pattern of answers in tests (as a group)".* Participant K1 observed: *"They are not in class, unless you threaten them that questions asked in chatroom are going to appear in formal assessments; knowing that they can copy online, they spend less time on self-learning".*

On the issue of students' ability to engage in online class, their enquiries and subsequent consultations, lecturers said students do not engage, especially in terms of talking, hence no enquiries but consultations improve as examinations approach. Participant A1 said: *"No, they don't come on board, no engagement, no consultations".*

Regarding students' time in class and self-learning, the general view was that students spend less time in class since attendance in online is poor (unless the lecturer threatens them that questions asked in chatroom are going to appear in formal assessments). With regard to students' ability to engage in courses in online class, their queries and subsequent consultations, lecturers said students do not engage at all; they only consult as examinations draw closer.

- What lecturers consider constitution of 'high quality' physical evidence of the online teaching process and the extent to which physical evidence in DBA meets the lecturers' understanding of 'high quality' - what DBA can do to improve quality of physical evidence

On the issue of what lecturers consider constitution of 'high quality' physical evidence of the online teaching process, participants emphasised buildings with appropriate gadgets which enable simple screening of teaching material, and Wi-Fi and Internet access which are reliable. Updated software and systems that truly talk to the learner, for example, Zoom, Google Docs and LinkedIn – linked to thuto – were also considered to be important. Other aspects that were mentioned were that the quality of content should be 100% good, NUL servers should be speedy, and Zoom on thuto should be made freely available (no charges) to students. Participants O1 specified: *"Where students are able to follow teachings, learn on their own, and ask questions".*

Regarding the extent to which physical evidence in DBA meets the lecturers' understanding of 'high quality', participants said that it does not. For example, DBA meets to vet final examination question-papers, yet it does not do the same for course outlines. Participant M3 noted: *"It doesn't. It is challenged; it doesn't meet high quality as expected; for example, mathematical courses like accounting".* That is, DBA physical evidence does not allow effective handling of accounting courses – they require special software in some cases, which DBA does not have.

About what DBA could do to improve the quality of physical evidence, participants indicated that DBA should increase the use of facilities in the library; for example, by ordering books. DBA could also invite entrepreneurs to finance teaching aids, such as laboratories. Participant T1 observed: *"The problem comes from lack of funds. No funds, lecturers end up keeping quiet. They all need to be replaced – computers and software outdated; some courses are not done because there is no software".* Participant M3 suggested: *"Have additional equipment that supports functionality of computers; for example, webcams to improve the use of computers; high quality recorders for live recordings; some trainings on how to prepare online material".*

In summary, regarding what lecturers consider a 'high quality' physical evidence of the online teaching process, lecturers emphasised updated software and systems that truly talk to the learner and are linked to thuto, and good quality content. They noted that DBA is challenged in terms of physical evidence; for instance, vetting of final examination question papers only and not of course outlines. With regard to what DBA can do to improve quality of physical evidence, some said DBA can attempt to find investors to fund teaching aids. They also said more training is required in preparing online material.

- The frequency and best way to assess the quality of online lecture services at NUL and responsible personnel

Regarding the frequency of conducting assessment of the quality of online lecture services at NUL, generally, participants agreed on doing it once in a semester (twice in an academic year). One participant said they should co-assess each other, while most said CTL (through students) should do it to avoid bias, and lecturers be given feedback without being involved. Participant M2 said: *"From management, HR, Deans, HOD – top management should drive the process".*

Concerning the best way to assess the quality of online lecture services at NUL, participants acknowledged that students should assess quality as recipients. Participant M2 suggested engagement of both lecturers and students separately through a questionnaire, but felt that students would be the best judge. Participant K1 said that CTL should be tasked, along with lecturers and students, while participant M3 said they should have a SET tool and utilise students' feedback. Participant M2 elaborated: *"We should include VC, HR, Dean, HOD and lecturers and ensure that online goals are achieved - every member to have a role to play; for example, HOD to meet lecturers individually; lecturers to give students evaluation forms; I do that often, to change certain activities; my fourth-years don't embrace online, like my third-years; it's important then to inquire from them, hence the assessment".*

In terms of how best to assess the quality of online lecture services at NUL, there was no consensus, except that CTL should be tasked to conduct the exercise. One lecturer seems to have been using her own tool that has enabled her to change some teaching and learning activities. Participants generally agreed that upon introduction of an appropriate tool, the evaluation should be done twice in an academic year, each semester.

- Other issues added, apart from those covered

Lecturers indicated that connectivity is already a problem countrywide. The costs of operating online are very high for students (for example, there are costs attached to using Zoom on thuto), thereby minimising

their participation. They (lecturers) felt that the findings of this study should be delivered to responsible authorities at NUL and be taken seriously to improve online delivery for DBA. An online delivery mode should not be a choice, but something all lecturers buy into. The curriculum should be converted to meet online medium needs. More investment by NUL is needed to enable effective delivery of such courses as accounting. NUL should embrace the benefits of online such as costs and autonomy and familiarity by students – the rest of the world is going online. Participant A1 indicated: "*Students should be trained as well and encouraged to appreciate online learning; they should appreciate its role in their education".*

Based on the input provided above, a three-dimension SERVQUAL with 36-items was selected as a potential service quality measurement instrument for use at NUL. The researcher ultimately selected an instrument suitable for NUL, being backed by both the participants and the literature reviewed, as outlined in this step. Thus, a way was paved to try the instrument by administering it to establish a 'baseline' measure. This is explored in the next step.

4.3.3 RO2 - To identify students' initial perceptions of online lecture service quality at NUL

Step 3

This step was meant to obtain a baseline measure of lecture service quality by administering the selected instrument (see Appendix B) in the selected courses. To achieve this objective, self-administered questionnaires were made accessible online to the 182 students in the selected courses. The step also intended to assess students' initial perceptions of lecture service quality at NUL.

4.3.3.1 The survey: background of the participants

Fifty-two out of 182 students returned duly filled-in questionnaires, giving a response rate of 29%. Sixty-nine percent of the participants were females, while thirty-one percent were males. Forty-six percent were in BCom Accounting, twenty-seven percent in Marketing, ten percent in Human Resources Management and seventeen in Information Systems. All the participants were in the fourth-year level of study.

4.3.3.2 Findings and analysis

The three important areas, the lecturer, teaching and learning activities and the classroom environment, were analysed in relation to the three Ps (people, process and physical evidence) and the three dimensions

of the SERVQUAL instrument (Empathy, Responsiveness and Tangibles). These are briefly explained below, after which analysis of findings is relayed.

- The lecturer - representing *people* (extended marketing mix) and *empathy* (SERVQUAL). His interaction with students in online teaching and learning, was assessed in relation to Empathy – his ability to observe students' needs while also showing their interest at heart.

- The lecture service production *process* (extended marketing mix) and *responsiveness*

  (SERVQUAL). His lecture service production process was assessed in relation to Responsiveness – his willingness to help students and provide quick service in terms of solving the students' problem.

- The *physical evidence* (extended marketing mix) and *tangibles* (SERVQUAL). T*angibles* in online education refers to advanced equipment, such that all technological devices aiding both teachers and students should be 'advanced'.

4.3.3.3 How the findings are presented

The results were presented in the form of tables, in respect of three main areas, *the lecturer*, *teaching and learning activities* and the *classroom environment* in relation to extended marketing mix elements (people, process and physical evidence) and corresponding SERVQUAL dimensions (empathy, responsiveness and tangible) as earlier indicated.

4.3.3.4 The survey results

The tabular form was used to present the results, separately for the three areas; the lecturer, teaching and learning activities and classroom environment.

- **The lecturer**

Ten statements relating to the above were rated by participants as follows:

Table 4.1 Survey results: The lecturer

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The teacher explains in advance, important information about the course, objectives, assessment criteria, evaluation system and mutual expectations of the teaching process, to me	6%	10%	15%	42%	27%
2. The lecturer shows aptitude in terms of communication skills, timeliness, attitude and friendliness.	6%	21%	13%	23%	37%
3. Online discussion groups established and led by the lecturer facilitate my learning and contribution to class discussion.	8%	16%	15%	40%	21%
4. The feedback I get in online class and assignments helps me do better in this course.	12%	9%	19%	27%	33%
5. The lecturer's knowledge of the subject matter is sufficient.	3%	12%	8%	37%	40%
6. The lecturer provides mentoring, caring and individualised attention to students in online class.	15%	17%	25%	24%	19%
7. The lecturer takes an interest in my academic progress.	8%	13%	19%	27%	33%
8. The lecturer makes an effort to help students develop professional and social skills and attitudes.	7%	6%	31%	27%	29%
9. The lecturer has well-publicised convenient online contact hours.	6%	5%	27%	29%	27%
10. The lecturer encourages and motivates students to do their best in the course.	10%	10%	13%	23%	44%

Notable results on the ten items centred on the lecturer's *empathy* during interaction with students include the following. The consistent 6% *strongly disagree* response for statement one and two shows that the lecturer's communication skills in terms of providing such crucial course-related information as expectations, objectives and assessment, do not meet students' expectations; thus, their needs in this regard are not observed as they interact with the lecturer.

The 19% *neutral* response on whether feedback helps students do better potentially signals that either the lecturer does not effectively deliver feedback online or students do not value it towards helping them improve. This is corroborated (against the lecturer) by the 10% *strongly disagree* response and a 10%

disagree response that the lecturer encourages or motivates students to do their best in the course. The 12% *strongly disagree* response and the 9% disagree response on the same issue of helpfulness of feedback raise alarm that there is a problem with feedback in helping students do better in the course.

Maybe the way the lecturer presents the feedback itself; that is, using electronic grading for multiple choice questions and providing summary of suggested solutions along may not be that helpful to students in doing better in the next assessment. The lecturer (researcher) uses 'track-changes' method for essay-type questions, which practically takes too long for the students to get feedback. This may account for this lack of helpfulness perceived by students.

- **The teaching and learning activities**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.2 Survey results: The teaching and learning activities

Statement	Never	Rarely	Often	Very often
11. Effective discussions and/or questions are displayed during online lectures.	8%	35%	46%	11%
12. I am given clear instructions.	4%	21%	44%	31%
13. I am given relevant solutions to class-related problems.	12%	25%	38%	25%
14. I am given fairness during grading by the instructor.	2%	23%	40%	35%
15. Owing to the way it is conducted, I find this course interesting, intellectually stimulating and contributing to my academic development	4%	21%	25%	50%
16. The lecturer provides accurate information regarding timetable, assignments, examination results, meetings and events, about the course.	0%	10%	46%	44%
17. The lecturer quickly, efficiently and professionally responds to student needs and inquiries.	2%	19%	40%	39%
18. The lecturer's professional conduct and the way he carries out teaching instill confidence in and reliability by students.	2%	19%	35%	44%
19. The lecturer has put in place mechanisms which students use to lay complaints about the lecture service and reflect their views and promptly deals with those.	27%	21%	23%	21%
20. The amount of contact I have with the lecturer in terms of online lectures, tutorials and consultation is sufficient.	27%	29%	25%	19%
21. The lecturer adequately complements theoretical explanations with practice aspects (illustrative examples, cases, exercises).	6%	8%	42%	44%

22. The lecturer creates knowledge value displayed through course structure and suitable instructional methodology of delivery.	2%	16%	40%	42%
23. You are learning what you hoped to learn.	9%	10%	35%	46%

Notable results on the thirteen items centred on the lecturer's *responsiveness* during teaching and learning activities include the following:

The 8% *never* response (statement 11) to the extent to which effective discussions and/or questions are displayed by the lecturer during online lectures indicates that the lecturer may not be effective in terms of delivering lectures online or he may not be responsive in terms of willingness to help students better comprehend the discussion or he may be failing to promptly provide service in terms of solving students' problems as they ask questions. The possibility of failure to address the questions may be strengthened by the students' *never* response (12%) in statement 13, that they are given relevant solutions to class-related problems. The 27% *never* response (statement 20) to the amount of contact students have with the lecturer in online lectures, tutorials and consultation shows students' dissatisfaction with the lecturer's responsiveness in terms of providing prompt service in solving their problems. The 9% *never* response (to statement 23) that students are learning what they had hoped to learn also shows that their problems are not solved, as far as the lecturer's responsiveness is concerned.

- **The classroom environment**

Thirteen statements relating to the above were rated by participants in the selected courses as follows:

Table 4.3 Survey results: The classroom environment

Statement	**Never**	**Rarely**	**Often**	**Very often**
24. Teaching materials aid lecture delivery.	6%	10%	40%	44%
25. Prescribed core-reading lists (textbooks and journals pertinent to the course) are available.	2%	20%	39%	39%
26. The quality of lecture equipment (e.g. the learning management system) meets my expectations in facilitating teaching and learning.	16%	37%	29%	25%
27. The quality of communication tools (such as thuto drop box and chat room) matches my expectations	18%	28%	33%	21%
28. The material (handouts) provided for assignments and projects are adequate and helpful.	2%	21%	35%	42%
29. The assessment/grading by the lecturer is fair.	5%	22%	38%	35%

30. Up-to-date course content characterises this course.	4%	15%	27%	44%
31. Adequate preparation by the lecturer characterises this course.	0%	19%	31%	50%
32. Good presentation of lecture material by the lecturer characterises this course.	0%	10%	30%	60%
33. The course content is well spread over the duration of the course	6%	17%	25%	52%
34. The sequence of topics is well spread over the duration of the course	2%	13%	35%	50%
35. The workload is well spread over the duration of the course.	8%	35%	26%	31%
36. The feedback I get in online class and assignments helps me do better in this course	10%	21%	25%	44%

Notable results on the thirteen items centred on the classroom environment's tangibles include the following:

The 16% *never* response (statement 26) to *the quality of lecture equipment* such as the learning management system meeting students' expectations in facilitating teaching and learning is worrisome since thuto is the only learning management system used by NUL; thus, students have limited or no choice in the online teaching and learning, so if it does not meet their expectations, it is an untenable situation for delivery of high quality online lecture services. This is exacerbated by the 18% *never* response (statement 27) to the quality of communication tools such as thuto drop box and chat room matching students' expectations. This clearly shows that all technological devices aiding both teachers and students in the online teaching and learning are not sufficiently advanced.

The level of preparation and presentation of lecture material seem to satisfy students as they occur *very often* (50% in statement 31) and *very often* (60% in statement 32) respectively, while there is no *never* response to both statements.

Having administered the selected instrument in the selected courses in this step, the next step was to decide on and implement the interventions, and then to obtain post-intervention feedback from students on the interventions and the instrument.

4.3.4 RO3 - To determine the influence of interventions related to interaction between students and staff, on students' initial perceptions of online lecture service quality;

RO4 - To determine the influence of interventions related to the lecture service production process, on students' initial perceptions of online lecture service quality;

RO5 - To determine the influence of interventions related to the physical evidence surrounding the online lecture service, on students' initial perceptions of lecture service quality

Step 4

The aim of this step was to implement changes to teaching practice, in relation to the selected Ps; that is, after their impact was detected in the preceding step. Another aim was to measure service quality after the implementation of the interventions; that is, to get a post-intervention measure. Lastly, the step aimed at obtaining student input to evaluate the selected instrument itself.

Based on the data gathered during the previous steps, the following interventions (changes to teaching practice) were implemented:

- *Physical evidence* – adapting the teaching materials; using the thuto online interface to deliver materials to students; changing the appearance/layout of the teaching venue, using Zoom meetings, e-mails, social media platforms and calls. That is, course-material communication/consumption avenues were effectively expanded.

- *People* – adapting the way in which the lecturer interacts with students (e.g. engaging in some online interactions on the thuto interface, liaising with class representatives on their WhatsApp and mobile contacts, while contacting individual students on their mobile contacts collected by class representatives). Improvement of student-teacher interaction was achieved by adding these other modes of interaction.

- *Process* – revising preparation methods for lecture material (e.g. prepared material, in short form, could be placed on the course website for accessibility by students ahead of a lecture session); revising delivery mode/methods (e.g. emphasise business case study incidents, where possible, for appreciation of real-life scenarios by students). Topical newspaper articles on business-related issues were scanned and uploaded on students' grouped e-mail address ahead of class. Informal

discussion groups amongst students were encouraged, in order to create more course-material consumption avenues.

With regard to a post-intervention measure, the researcher initially planned to rerun the questionnaire (online, self-administered) with the 182 students in the three selected courses to whom the baseline survey had been administered. Instead, three focus groups comprising students from the selected courses were assembled to discuss the feedback on the interventions and the instrument. The reason for this was that the response rate in the initial/baseline survey had been low (29%), despite numerous reminders by the fieldworker over an extended period of time. As there was limited time available to gather the post-intervention data, there was concern that if an online self-administered questionnaire was run again, the response rate would be even lower this time, as time constraints would not allow for reminders to try to increase the response rate. The researcher therefore decided to use focus groups made up of students from the same cohort of 182 students to whom the questionnaire had initially been administered.

After being invited to participate in the focus groups, the students selected themselves (with the assistance of class representatives). Thus, they were likely to be motivated and give honest assessment, despite the challenge of lack of anonymity under this condition. This might have influenced participants' responses, even though the researcher emphasised professionalism and honesty during the discussions. At the time of participating in the focus group discussions, these participants were also assumed to be able to give richer and deeper input, having already familiarised themselves with the questionnaire (they claimed to have completed the questionnaire during the baseline survey carried out in Step 3).

Focus groups are ideal for qualitative data collection; however, they can also be used to collect quantitative data (Leiman, 1988; Adkins, 2020). The researcher decided to use focus group discussions to gather quantitative data in this step, using the same questionnaire that had been used for the baseline survey. Leeway was made for participants to provide qualitative insights, on top of the quantitative responses. The open nature of focus group discussions (compared to a structured closed-ended questionnaire) would allow for more in-depth data to be collected, and contribute to potentially deeper understanding of the phenomenon under study.

The researcher felt that the above-mentioned situation, although it was not what was originally envisaged, would be acceptable, mainly because the study was primarily qualitative (with the intention of understanding what factors were considered important in evaluating online teaching). That is, although it adapted and implemented a questionnaire as part of the action research process, this was mainly aimed at

developing the researcher's online teaching practice and coming up with broad guidelines to suggest how online lecture quality might be measured at NUL going forward. It was not the intention of the study to finalise/validate an instrument at this stage, but to offer an instrument simply as a starting point for further development/testing.

Finally, as indicated earlier, authors such as Nzembayie (2017) indicate that action research may change direction, owing to its emergent and iterative nature. The shift to focus group discussions to collect quantitative data, as well as the decision to focus on a smaller cohort of the original sample of 182 students, in light of the poor response rate in the original survey, demonstrates the emergent and iterative character of the action research in this study, which proved flexible and able to change course when the need arose.

The following were used to obtain data to achieve these aims:

- Focus group discussions with students in the three selected courses

Quantitative data was analysed through Microsoft Excel, while qualitative data was analysed through thematic analysis.

4.3.4.1. Focus groups

Participants in the focus group discussions were drawn from the three selected courses: Strategic Management, Integrated Marketing Communications and Services Marketing, which are all offered by the researcher at fourth-year level. The participants were spread across the three streams in the Department of Business Administration: Accounting, Marketing and Human Resources Management. There were three focus groups (one per course) of 10 students each. Each focus group discussion took place via Zoom (with audio recording), for a period of ninety minutes, with a five minute-break halfway. The discussions were held in the middle of the second semester of the 2022/2023 academic year.

The findings of each of the three focus groups are presented separately, the reason being that each focus group contained students from one course, namely, Strategic Management (with 139 students in total), Integrated Marketing Communications (with 22 students in total) and Services Marketing (with 21 students in total). The researcher was interested in establishing whether class size might have had some influence on the students' perceptions. Based on this, the results were analysed separately. Another reason for considering each group separately was that different interventions had been implemented in different classes at different time periods.

4.3.4.2 Focus group one: Strategic Management class

- **The lecturer**

Ten statements relating to the above were rated by participants as follows:

Table 4.4 Focus group one results: The lecturer

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The teacher explains in advance, important information about the course, objectives, assessment criteria, evaluation system and mutual expectations of the teaching process, to me	0%	33%	67%	0%	0%
2. The lecturer shows aptitude in terms of communication skills, timeliness, attitude and friendliness.	0%	0%	0%	20%	80%
3. Online discussion groups established and led by the lecturer facilitate my learning and contribution to class discussion.	0%	14%	29%	14%	29%
4. The feedback I get in online class and assignments helps me do better in this course.	13%	13%	25%	25%	25%
5. The lecturer's knowledge of the subject matter is sufficient.	50%	0%	0%	0%	50%
6. The lecturer provides mentoring, caring and individualised attention to students in online class.	71%	29%	0%	0%	0%
7. The lecturer takes an interest in my academic progress.	0%	0%	38%	62%	0%
8. The lecturer makes an effort to help students develop professional and social skills and attitudes.	10%	0%	10%	10%	70%
9. The lecturer has well-publicised convenient online contact hours.	0%	14%	15%	14%	57%
10. The lecturer encourages and motivates students to do their best in the course.	0%	0%	40%	40%	20%

Notable results include the following. Firstly, participants seem more resolute in their responses this time around; for example, *strongly disagree/agree* responses feature most; and there are fewer neutral responses.

Such interventions as usage of WhatsApp and mobile-contact calls used by the lecturer when interacting with students might be explaining why students are very sure of the quality of interaction.

Secondly, these added medium of communication (WhatsApp and calls) have made it possible for students to clearly see such aspects as whether t*he lecturer provides mentoring, caring and individualised attention to them in online class.* The 71% *strongly disagree* response to this statement shows that students have become more observant in the face of added communication channels.

All in all, these interventions seem to have favourably increased the rating of the lecturer's interactions with students. Thus, by being individually called or text on WhatsApp, students might have felt that their personal needs are being observed and the lecturer has their best interests at heart.

A theme: *Effectiveness of WhatsApp and calls,* was derived from the qualitative data provided.

All the ten participants showed that WhatsApp is more affordable for them to communicate with the lecturer while calls could only be cheap if the lecturer allows 'call-back', so that he can call students upon request, to discuss course-related issues. They unanimously agreed that these platforms can supplement thuto chatroom, which allows writing only.

Another theme: *Impact of class size on student-teacher interaction,* was developed

Participants voiced their dissatisfaction that individualised attention given by the lecturer is seriously lacking in their class of 139 students. They said such class size makes them perceive the lecture service as predominantly theoretical since practical exercises are rarely given; hence they rate lecture quality as low quality. They said they did not expect such a number of students in a class at the university level.

- **The teaching and learning activities**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.5 Focus group one results: The teaching and learning activities

Statement	Never	Rarely	Often	Very often
11. Effective discussions and/or questions are displayed during online lectures	0%	13%	50%	37%
12. I am given clear instructions	0%	13%	37%	50%
13. I am given relevant solutions to class-related problems	0%	13%	50%	37%
14. I am given fairness during grading by the instructor	25%	0%	37%	38%
15. Owing to the way it is conducted, I find this course interesting, intellectually stimulating and contributing to my academic development	0%	12%	0%	88%
16. The lecturer provides accurate information regarding timetable, assignments, examination results, meetings and events, about the course	0%	0%	13%	87%
17. The lecturer quickly, efficiently and professionally responds to student needs and inquiries	0%	0%	29%	71%
18. The lecturer's professional conduct and the way he carries out teaching instill confidence in and reliability by students	0%	0%	0%	100%
19. The lecturer has put in place mechanisms which students use to lay complaints about the lecture service and reflect their views and promptly deals with those	0%	100%	0%	0%
20. The amount of contact I have with the lecturer in terms of online lectures, tutorials and consultation is sufficient	0%	21%	89%	0%
21. The lecturer adequately complements theoretical explanations with practice aspects (illustrative examples, cases, exercises)	0%	0%	12%	88%
22. The lecturer creates knowledge value displayed through course structure and suitable instructional methodology of delivery	0%	0%	22%	78%
23. You are learning what you hoped to learn.	0%	0%	25%	75%

Notable results include the following. The rating for statement 15 (88% - *very often*) has significantly increased. This might be attributed to the intervention implemented, whereby topical newspaper articles were uploaded on students' grouped e-mail address ahead of class. Students' interest in the course might have increased as they came to observe what is happening in the industry they are about to join as they are in their final year of study. The teacher's emphasis on business case incidents might have triggered or enhanced the interest as well.

The 100% - *very often* - rating to statement 18 could be attributed to preparation of material in short form and their placement on the course website for students to access ahead of class.

The 100% - *rarely* - rating to statement 19 is worrisome, and signals that the implemented interventions do not address students' concern about mechanisms to lay complaints to the lecturer, as well as to reflect their views.

In relation to the qualitative data about the teaching and learning activities, the following theme was derived:

Effectiveness of additional learning material

All the participants highly valued such additional learning material as newspaper articles and business case studies, arguing that they merge theory with the industry, thereby enhancing their understanding of applying learned theories in the real-world.

- **The classroom environment**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.6 Focus group one results: The classroom environment

Statement	Never	Rarely	Often	Very often
24. Teaching materials aid lecture delivery	0%		11%	89%
25. Prescribed core-reading lists (textbooks and journals pertinent to the course) are available	0%	0%	0%	100%
26. The quality of lecture equipment (e.g. the learning management system) meets my expectations in facilitating teaching and learning	100%	0%	0%	0%
27. The quality of communication tools (such as thuto drop box and chat room) matches my expectations	75%	25%	0%	0%
28. The material (handouts) provided for assignments and projects are adequate and helpful	0%	0%	29%	71%
29. The assessment/grading by the lecturer is fair	0%	17%	16%	67%
30. Up-to-date course content characterises this course	0%	0%	0%	100%
31. Adequate preparation by the lecturer characterises this course	0%	0%	0%	100%

32. Good presentation of lecture material by the lecturer characterises this course	0%	0%	0%	100%
33. The course content is well spread over the duration of the course.	0%	0%	0%	100%
34. The sequence of topics is well spread over the duration of the course	0%	0%	17%	83%
35. The workload is well spread over the duration of the course	0%	25%	75%	0%
36. The feedback I get in online class and assignments helps me do better in this course	0%	33%	0%	67%

Notable results and themes are as follows. The 100% - *very often* - response (statement 25) rating of reading materials pertinent to the course might be attributable to the intervention of encouraging social media platform usage to share course-related material. Students might have started sharing information on such platforms better, now that it had been suggested by the lecturer. This seems to have increased course-related communication/consumption avenues as the intervention was intended to.

The 100% - *never* - *response* (statement 26) is very worrisome. It means that such interventions as Zoom meetings which the lecturer had started using were not meeting students' expectations in facilitating teaching and learning.

The consistent 100*%* - *very often* - response in statements 30, 31, 32 and 33, show that course content relevance, preparation and presentation of course material, spreading of workload and sequence of topics were positively affected by the implemented interventions such as using individual e-mails to dispatch course-related material/information.

A theme: *Usefulness of individual e-mails and social media platforms in distributing course informatio*n, was derived.

Participants preferred lectures on such social media platforms as WhatsApp and YouTube, rather than thuto Zoom meeting; claiming that since Zoom meeting on thuto lasts for only 40 minutes, it exerts pressure on them, while 'hotspots' on campus or elsewhere enable a prolonged engagement.

4.3.4.3 Focus group two: Services Marketing class

- **The lecturer**

Ten statements relating to the above were rated by participants as follows:

Table 4.7 Focus group two results: The lecturer

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The teacher explains in advance, important information about the course, objectives, assessment criteria, evaluation system and mutual expectations of the teaching process, to me	34%	0%	0%	33%	33%
2. The lecturer shows aptitude in terms of communication skills, timeliness, attitude and friendliness.	0%	0%	0%	20%	80%
3. Online discussion groups established and led by the lecturer facilitate my learning and contribution to class discussion.	13%	29%	13%	13%	29%
4. The feedback I get in online class and assignments helps me do better in this course.	0%	13%	24%	25%	24%
5. The lecturer's knowledge of the subject matter is sufficient.	0%	0%	0%	0%	100%
6. The lecturer provides mentoring, caring and individualised attention to students in online class.	0%	0%	100%	0%	0%
7. The lecturer takes an interest in my academic progress.	0%	20%	80%	0%	0%
8. The lecturer makes an effort to help students develop professional and social skills and attitudes.	0%	14%	43%	0%	0%
9. The lecturer has well-publicised convenient online contact hours.	50%	0%	50%	0%	0%
10. The lecturer encourages and motivates students to do their best in the course.	0%	17%	17%	0%	67%

Contents of statement 6 and 7 almost boil down to one thing, the student's academic progress, at the end of the day, but the difference of 20% is large enough to show students' inconsistency in their *neutral* response for both statements. It may be that expansion of teaching aids and communication platforms; for example, Zoom meeting and use of social media platforms in communication were considered as provision of

individualised attention in statement 6, but later in statement 7, students recalled that feedback (statement 4) does not essentially help them do better, hence hampering their academic progress. Students did not provide qualitative data to this interesting contrast though.

- **The teaching and learning activities**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.8 Focus group two results: The teaching and learning activities

Statement	Never	Rarely	Often	Very often
11. Effective discussions and/or questions are displayed during online lectures	20%	40%	40%	0%
12. I am given clear instructions	0%	0%	25%	75%
13. I am given relevant solutions to class-related problems	14%	50%	14%	14%
14. I am given fairness during grading by the instructor	0%	13%	50%	37%
15. Owing to the way it is conducted, I find this course interesting, intellectually stimulating and contributing to my academic development	0%	0%	33%	67%
16. The lecturer provides accurate information regarding timetable, assignments, examination results, meetings and events, about the course	0%	0%	0%	100%
17. The lecturer quickly, efficiently and professionally responds to student needs and inquiries	0%	0%	40%	60%
18. The lecturer's professional conduct and the way he carries out teaching instill confidence in and reliability by students	0%	0%	14%	86%
19. The lecturer has put in place mechanisms which students use to lay complaints about the lecture service and reflect their views and promptly deals with those	40%	40%	20%	25%
20. The amount of contact I have with the lecturer in terms of online lectures, tutorials and consultation is sufficient	0%	25%	25%	67%
21. The lecturer adequately complements theoretical explanations with practice aspects (illustrative examples, cases, exercises)	0%	0%	33%	80%
22. The lecturer creates knowledge value displayed through course structure and suitable instructional methodology of delivery	0%	0%	20%	80%
23. You are learning what you hoped to learn.	0%	0%	12%	88%

Notable results and themes derived included the following. The 50% - *rarely* - response to statement 13 shows that such implemented interventions as revising delivery mode/methods still do not meet the

students' expectations. The 88% - *very often* - response to statement 23 attests that such interventions as provision of business-related newspaper articles and business cases studies reinforce students' expectations of what they had hoped to learn.

The same theme*: Effectiveness of additional learning material, was derived.*

This time, students pointed to a flaw in relying on newspaper articles, that it might weaken their writing style since journalists write to impress buyers, hence may pay little attention to English language issues. They however, approved of business-related case studies, saying they are tailored for student consumption, hence may sharpen their analytical skills.

- **The classroom environment**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.9 Focus group two results: The classroom environment

Statement	Never	Rarely	Often	Very often
24. Teaching materials aid lecture delivery	0%	0%	40%	60%
25. Prescribed core-reading lists (textbooks and journals pertinent to the course) are available	0%	25%	50%	25%
26. The quality of lecture equipment (e.g. the learning management system) meets my expectations in facilitating teaching and learning	0%	50%	25%	25%
27. The quality of communication tools (such as thuto drop box and chat room) matches my expectations	100%	0%	0%	0%
28. The material (handouts) provided for assignments and projects are adequate and helpful	75%	25%	0%	0%
29. The assessment/grading by the lecturer is fair	0%	14%	43%	43%
30. Up-to-date course content characterises this course	0%	25%	50%	25%
31. Adequate preparation by the lecturer characterises this course	0%	0%	33%	67%
32. Good presentation of lecture material by the lecturer characterises this course	0%	0%	0%	100%
33. The course content is well spread over the duration of the course.	0%	0%	0%	100%
34. The sequence of topics is well spread over the duration of the course	0%	0%	50%	50%

35. The workload is well spread over the duration of the course	0%	0%	25%	75%
36. The feedback I get in online class and assignments helps me do better in this course	0%	43%	0%	57%

Notable results and themes include the following. The 25% - *rarely* - response in statement 25, is worrisome that prescribed core-reading list is rarely available. This means that such interventions as additional case studies and newspaper articles do not meet students' expectations in this regard. A 75% - *never* - *r*esponse to statement 28 on adequacy of handouts further corroborates that reading material, inclusive of those provided as forms of intervention, still do not meet students' expectations.

The same theme: *Usefulness of individual e-mails and social media platforms in distributing course informatio*n, was derived.

This time, students complained that social media platforms lack security features for their work to be protected, hence should be used to a limited extent, with one pointing that they are as well prone to feeding junk information. However, students' level of consultations on course-related matters significantly increased as WhatsApp became dominant in communicating with the lecturer.

4.3.4.4 Focus group three: Integrated Marketing Communications class

- **The lecturer**

Ten statements relating to the above were rated by participants as follows:

Table 4.10 Focus group three results: The lecturer

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The teacher explains in advance, important information about the course, objectives, assessment criteria, evaluation system and mutual expectations of the teaching process, to me	0%	33%	67%	0%	0%
2. The lecturer shows aptitude in terms of communication skills, timeliness, attitude and friendliness.	0%	0%	0%	20%	80%
3. Online discussion groups established and led by the lecturer facilitate my learning and contribution to class discussion.	14%	29%	0%	14%	29%
*4.*The feedback I get in online class and assignments helps me do better in this course.	0%	0%	0%	50%	50%
5. The lecturer's knowledge of the subject matter is sufficient.	0%	0%	0%	0%	100%
6. The lecturer provides mentoring, caring and individualised attention to students in online class.	0%	0%	0%	0%	100%
7. The lecturer takes an interest in my academic progress.	20%	20%	0%	60%	0%
8. The lecturer makes an effort to help students develop professional and social skills and attitudes.	43%	14%	0%	43%	0%
9. The lecturer has well-publicised convenient online contact hours.	50%	50%	0%	0%	0%
10. The lecturer encourages and motivates students to do their best in the course.	0%	17%	17%	67%	0%

The notable result here is the 50% - *strongly disagree* - response to statement 9 and another 50% -*disagree* - response to same statement, signifying that the implemented interventions have dismally failed to address students' concern on the convenience of publication of online contact hours by the lecturer. That is, e-mails, social media platforms and calls could not create expected level of convenience for the students.

There were not much new revelations to the same theme addressed by focus group three.

- **The teaching and learning activities**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.11 Focus group three results: The teaching and learning activities

Statement	Never	Rarely	Often	Very often
11. Effective discussions and/or questions are displayed during online lectures	0%	0%	100%	0%
12. I am given clear instructions	0%	0%	25%	75%
13. I am given relevant solutions to class-related problems	0%	0%	67%	33%
14. I am given fairness during grading by the instructor	25%		75%	0%
15. Owing to the way it is conducted, I find this course interesting, intellectually stimulating and contributing to my academic development	0%	0%	0%	100%
16. The lecturer provides accurate information regarding timetable, assignments, examination results, meetings and events, about the course	0%	0%	40%	60%
17. The lecturer quickly, efficiently and professionally responds to student needs and inquiries	0%	0%	14%	86%
18. The lecturer's professional conduct and the way he carries out teaching instill confidence in and reliability by students	0%	40%	60%	0%
19. The lecturer has put in place mechanisms which students use to lay complaints about the lecture service and reflect their views and promptly deals with those	0%	25%	0%	0%
20. The amount of contact I have with the lecturer in terms of online lectures, tutorials and consultation is sufficient	0%	25%	75%	0%
21. The lecturer adequately complements theoretical explanations with practice aspects (illustrative examples, cases, exercises)	0%	0%	0%	100%
22. The lecturer creates knowledge value displayed through course structure and suitable instructional methodology of delivery	0%	0%	0%	100%
23. You are learning what you hoped to learn.	0%	0%	80%	20%

Notable results include a 100% - *often* - response in statement 11, which may imply that attachment of material ahead of the class session as an intervention measure may be working towards students' expectation in the lecture service production process.

There was no notable addition to the same theme under this construct.

- **The classroom environment**

Thirteen statements relating to the above were rated by participants as follows:

Table 4.12 Focus group three results: The classroom environment

Statement	Never	Rarely	Often	Very often
24. Teaching materials aid lecture delivery	0%	20%	0%	80%
25. Prescribed core-reading lists (textbooks and journals pertinent to the course) are available	0%	100%	0%	0%
26. The quality of lecture equipment (e.g. the learning management system) meets my expectations in facilitating teaching and learning	0%	100%	0%	0%
27. The quality of communication tools (such as thuto drop box and chat room) matches my expectations	33%	67%	0%	0%
28. The material (handouts) provided for assignments and projects are adequate and helpful	0%	0%	60%	40%
29. The assessment/grading by the lecturer is fair	0%	20%	80%	0%
30. Up-to-date course content characterises this course	0%	0%	0%	100%
31. Adequate preparation by the lecturer characterises this course	0%	0%	0%	100%
32. Good presentation of lecture material by the lecturer characterises this course	0%	0%	0%	100%
33. The course content is well spread over the duration of the course.	0%	0%	0%	100%
34. The sequence of topics is well spread over the duration of the course	0%	0%	50%	50%
35. The workload is well spread over the duration of the course	0%	50%	25%	25%
36. The feedback I get in online class and assignments helps me do better in this course	0%	0%	75%	25%

The only notable result here is the 80% - *often* - response to statement 29, which has all along been lower than 60%. This may be attributable to added reading materials, namely, newspapers and case studies, and also added communication platforms such as calls since students can easily contact the lecturer during preparations for assessments, hence may feel they obtained a fair mark then.

There was no major change to the derived theme under this construct.

The results of this step shed a lot of light in terms of effecting appropriate changes in the researcher's teaching practice, although the students did not evaluate the proposed instrument as envisaged. They lamented lack of sufficient knowledge on the selected elements of SERVQUAL, among other reasons.

The need to modify the researcher's teaching practice is further explored in the next step.

4.3.5 Step 5

This step involved reflection; that is, the researcher's reflection on the action research process/cycle that has been completed. The researcher kept a journal/notes for this purpose.

Based on the findings of the previous step, particularly the impact of the implemented interventions, modifications on the researcher's teaching practice are inevitable, as far as the selected Ps and the dimensions of SERVQUAL are concerned. This is largely possible since these are all directly controllable to the researcher. The researcher shall reflect on the group discussion sessions as he has taken notes, while the sessions were audio-recorded. The lecturers' views on the interventions that they put in relation to the selected Ps and the dimensions of SERVQUAL shall be re-visited, to augment those interventions that proved useful as perceived by the students during the focus group discussions.

4.5 Conclusion

The chapter has presented both qualitative and quantitative results from various data sources and analyses. The pattern of results across the primary data signifies the exploratory nature of the study for both NUL context and Lesotho HE context at large. The qualitative results have provided vital information in respect of undergraduate students' and lecturers' expectations and perceptions of online lecture service quality. The notable result here is that collectively, students and lecturers in the Lesotho HE sector (represented by NUL) believe a lot has to be done to improve online lecture service quality, while they embrace the significance of consistently and systematically measuring the quality of such lecture service.

The action research case study approach has enabled incorporation of activities not necessarily earlier envisaged, but found worth undertaking in the process. Addition of learning material, as well as communication platforms can potentially enhance student teaching and learning experience. The next chapter discusses these results in detail.

CHAPTER FIVE: DISCUSSION/CONCLUSION

5.1 Introduction

The chapter discusses findings from the previous chapter, in relation to the extent to which the research objectives have been met, and also in relation to relevant literature. The chapter highlights the contribution of the study to the knowledge-base in terms of literature and methodological approach. The chapter ends by making recommendations for practitioners and for future research on the area, while also identifying the limitations of the study.

5.2 Summary of findings in relation to research objectives

5.2.1 PO: To propose a way of measuring service quality at NUL

A modified SERVQUAL instrument was used to obtain a baseline measure of lecture service quality. The questionnaire was divided into three major sections; namely, student-lecturer interaction (people), lecture service production and delivery (process) and physical facilities impacting classroom experience (physical evidence). An appropriate Likert-scale was then adapted to measure variances in relation to these aspects. The study finally proposed an adapted a three-dimension (empathy, responsiveness and tangibles) SERVQUAL with 36 items, as a suitable model for measuring service quality at NUL. This is consistent with Uppal et al's (2017) findings that as students perceive e-learning quality, such perceptions should single out learning content (information), course website (system) and SERVQUAL (service) dimensions. That is, information in this study is represented by *process* (lecture service production and delivery), system by thuto learning management system and SERVQUAL dimensions by Empathy, Responsiveness and Tangibles, which the study considered pertinent to the online teaching and learning activity at NUL. Having achieved this primary objective, the study shall 'rescue' NUL from running online teaching and learning without a measurement instrument, while enabling it fully enjoy benefits of this mode it recently introduced. Masoumi and Lindstron (2011) acknowledge e-learning as a new approach to education, teaching and learning. Uppal et al. (2017) assert that HEIs should manage e-learning and assess quality accurately. Thus, with a measurement tool in place, NUL will be able to consistently and systematically evaluate online teaching and learning. All other HEIs in Lesotho (and elsewhere) may as well utilise this instrument, which may readily be adjusted to suit their context. Although well adapted in the study, Milojevic points to a major weakness of SERVQUAL as that of being unable to create or forecast direction in future. That is, NUL may not be able to identify potential developments in students' perceptions of lecture service quality in the future, based on the adapted instrument. Thus, it may have limited contribution to future planning

endeavours surrounding online teaching and learning. In particular, it may not meaningfully assist CTL plan. This is attested by the study's discovery from one CTL Participant, Participant D1: "Insufficient utilisation of thuto by lecturers hinders monitoring of its effectiveness in the online teaching and learning activity, and also impedes planning on consistent and systematic measurement of lecture service quality by CTL, which is already understaffed." This is worrisome, considering that Khan, Siddiqui and Rais (2021) recommend a clear plan and utilisation of quality systems and tools for improvement, based on their study in Karachi University in Pakistan. For NUL at large, this may limit its market share as Milojevic and Radosavljevic (2019) note how critical service quality is in the market for education in terms of how HEIs survive and grow in that market, while Udo *et al.* (2011) assert that assessing the quality of e-learning is a strategic issue that is critical for a programme to survive. That is, the BCom programme under which the selected courses fall, may be enhanced in terms of survival, based on the findings of this study. This is particularly important as Du, Li and Wang (2018) note a consistent concern about service quality in the online education field, which this study has also established from NUL students and teaching staff. Teeroovengadum *et al., (*2016) assert that universities should gauge their quality of services on a sustainable basis, so that they can make improvements. That is, NUL will be motivated to consistently gauge lecture service quality for improvement now that there is a proposed measurement instrument. Apart from concerns on the service quality, another thorny issue has been on the learning management system, thuto, (represented by *physical evidence* in the study) through which lecture services are conducted, hence having a direct impact on their quality. While Ayanwale *et a*l. (2023) conclude that as far as Lesotho HEIs (NUL included) are concerned, tools used in the electronic learning possess more weaknesses than strengths, Sepiriti (2021) and Makafane and Chere-Masupha (2021) specifically discredit thuto (which is the major tool for online learning at NUL). This study has potential to address some of these concerns since lecturers (on their own or through CTL) will have a tool to now consistently and systematically assess lecture service quality, thereby identifying and rectifying weaknesses with physical evidence (infrastructure in their control, in particular, such as recommending incorporation of WhatsApp, YouTube and other mechanisms into thuto, to form a whole-total system).

In Vietnam, student satisfaction in HE is simply related to how they perceive service quality, such that they become loyal when they perceive a high-quality service (Bui *et al.*, 2022). That is, undergraduate students may become loyal to NUL and come back for postgraduate programmes only when they perceive lecture services as being of high quality. Valencia-Arias *et al*. (2023) note the importance of HEIs adding value by continually improving academic services. They argue that such improvements become realistic when HEIs have service quality assessment models, particularly in developing countries where infrastructural and

financial constraints remain a serious challenge. Lesotho is not spared such challenges as a developing country. Thus, NUL having its own measurement tool (which may be used by Botho University and Limkokwing University and elsewhere) may alleviate these challenges to some degree, while it continues to improve its academic offerings. Under such situation, NUL will enjoy full benefits of online teaching and learning, as Ayanwale *et al.* (2023) claim that online (electronic) learning brings about new opportunities to the classroom environment.

5.2.2 RO1: To identify what undergraduate students and lecturers at NUL expect and perceive in terms of online lecture service quality

Undergraduate students at NUL expect online lecture service quality to match or exceed the quality of teaching offered onsite, in the sense that lecturers have an option of improvising by using many different ways of preparing and presenting the lecture (for example, PowerPoint, audios, videos and YouTube), while these teaching aids may be used to a limited extent in contact teaching (for example, audios and YouTube). Alhazmi (2022) warns that students (just like customers at any other service-providing business organisation) demand high service quality. However, Goumairi, Aoula and Souda (2020) indicate that student satisfaction in terms of service is a major challenge for universities recently. Thus, for NUL, which recently introduced online teaching and learning, the challenge may be more complicated. This is consistent with the study's discovery that the students perceive the currently-offered online lecture service quality at NUL to be of low quality. They attribute this to a number of factors, dominated by their limited interaction with lecturers in the production of such lectures; in other words, they blame it on their exclusion from the lecture service production process. Amoako *et al*. (2023) warn that teaching and learning are now confronted by a changing landscape of information and communication technologies, such that it now takes place online, thereby limiting normal interaction between teacher and a student. Another major factor the students in this study identified is that their lecturers are not dynamic in the online setting; examples given were of lecturers not embracing the concept of e-books or the use of such social media platforms as WhatsApp in communicating course-related issues. Lefoka (2023) observes that HEIs in Lesotho are guided by the Higher Education Act, whose policy singles out Responsiveness among HE providers to the needs and perceptions of the students they serve. That is, while the students in this study acknowledge the usefulness of e-books in their education, their lecturers seem reluctant about the concept. This does not only violate the policy regulation but also impedes prompt response (by lecturers) to students' requests, especially in the online setting.

According to Lefoka (2023), while CHE ensures quality in HEIs by encouraging them to strengthen their internal quality assurance systems, these institutions need to continually assess the needs and perceptions of the students they service, particularly in terms of academic services rendered to students. Sitanggang, Luthan and Hamid (2021) mention that students' satisfaction of the service offered by a university leads to loyalty, which they display by completing all assigned work and feeling optimistic in the learning process. However, Ayanwale *et al.* (2023) discovered that students in Lesotho HEIs are not actively participating in online learning and teaching; they just log in or read their Facebook and WhatsApp chats. Similarly, in this study, lecturers noted that students do not prepare ahead, hardly attend or simply log in and disappear. They said this is shown by lack of response to questions posted on thuto.

Lecturers, on the other hand, expect online lecture service quality to meet student learning needs, mainly by allowing two-way communication between the lecturer and the students, while also allowing the students to learn on their own. The lecturers perceive the currently-offered lecture service as falling short in terms of quality. They blame the currently-used learning management system, thuto, for inadequacy in terms of its features, which they indicate do not allow incorporation of such 'lively' teaching aids as YouTube and Zoom meetings (since Zoom meeting class on thuto lasts for forty minutes only, while the contact-class takes an hour). Makafane and Chere-Masopha (2021) recommend use of Zoom and WhatsApp, on top of thuto, for effective online learning at NUL. On the contrary, Makumane (2021) advances thuto's proficiency in terms of access of content and structured communications, by both students and lecturers. Makumane's claim may be supported by this study, as one lecturer-participant (Participant M3) admitted their underutilisation of thuto: *"We don't try all available options; for example, discussion platforms on thuto, audios, slides".*

The lecturers in this study also point to students' limited participation in online class activities, which effectively results in copying during assessments. This may partly be attributed to Sepiriti's (2021) discovery that thuto at NUL cannot be accessed by all students at the same time, and on weekends, thereby limiting levels of participation of students. However, Goumairi, Aoula and Souda (2020) observe that students' role as stakeholders in HE is essential, while Udo *et al.* (2011) warn that the online instructor is a facilitator rather than the primary source of information, and students participate actively to acquire knowledge. The rate at which NUL students acquire knowledge in the online class may therefore, be negated by their level of participation in such.

5.2.3 RO2: To identify students' initial perceptions of online lecture service quality at NUL

The major finding from the survey conducted to gather a baseline measure of students' initial perceptions was that students valued the lecturer-related issues or activities more than the teaching and learning activities themselves and the physical surroundings in which teaching and learning were taking place. This is acknowledged by Huliatunisa *et al*. (2022), who note the significant role played by quality of lecturers' academic services in maintaining student-lecturer collaboration. The students in this study considered the lecturer's level of knowledge of the course, his level of preparation, how he presents the course material and finally, how he assesses them. They pointed to the possibility of not being fairly assessed under the current online setting at NUL. Their initial perceptions were that the lecturer was doing 'enough' under his control, except for the assessments, which they claimed are unlikely to be fair in the online setting.

5.2.4 RO3: To determine the influence of interventions related to interaction between students and staff, on students' initial perceptions of online lecture service quality

The major finding regarding interaction between students and staff was that, after the lecturer had started liaising with class representatives on their WhatsApp and mobile contacts, and contacting individual students on their mobile and WhatsApp contacts, students' level of consultations on course-related matters significantly increased. WhatsApp was the major medium which reinforced this interaction as students claimed its affordability compared to calls.

5.2.5 RO4: To determine the influence of interventions related to the lecture service production process, on initial perceptions of online lecture service quality

The major finding, in terms of interventions related to lecture service production process, was around topical newspaper articles on business-related issues which were scanned and uploaded on students' grouped e-mail address ahead of class; their impact was immense in influencing students' initial perceptions of the lecture service production process. In particular, students showed interest in what was currently happening in the corporate world (as reflected in the newspaper articles uploaded) which they were about to join since they were in the final year of study (fourth year). This increased both attendance and participation in class discussions. They gradually perceived the lecture service as touching on their life experiences, hence addressing their needs. Thus, they perceive such lecture services as high quality. Aurangzeb (2019) states that course content should incorporate those activities which students value in their day-to-day life experiences.

5.2.6 RO5: To determine the influence of interventions related to the 'physical evidence' surrounding the online lecture service, on initial perceptions of lecture service quality

The major finding has been that using Zoom meetings, e-mails, social media platforms and calls to communicate with students created options for them. The Zoom App in thuto was explored; its major limitation was to last only forty minutes; however, the version of the app which students would have downloaded on their own, was more user-friendly. These platforms/apps (i.e. Zoom meetings, e-mails and social media platforms) diverted students' attention from thuto (with chatroom being the only platform to communicate). The students then started underplaying thuto's effectiveness as they now had more options. This increased their overall perception of physical evidence in the online setting at NUL. Ayanwale *et al.* (2023) note that exclusive use of online teaching and learning tools will negatively affect the quality offered by HEIs in Lesotho. Another discovery of this study is that the forced rapid adoption of online learning during COVID-19, was something which both NUL students and staff were not necessarily familiar with but had no option. Thus, students in particular had a very limited time to learn and utilise thuto to its full potential as a learning management tool. This is attested by one participant who asserted that: "Thuto is not effective; it takes too long but WhatsApp and YouTube allow videos ahead of lecture; they should be made (WhatsApp, YouTube and thuto) one total system". Verma and Prasad (2017) specify that proper infrastructural support, especially in the classroom setting, augments students' learning. Thus, the study shall help NUL gradually devise effective assessment of online teaching methods, from the 'bottom-up'; that is from the students' perspective, to the policy-makers, to explore the full potential of this new mode of teaching and learning in NUL as a HE. The physical evidence, whose influence was assessed in conjunction with the SERVQUAL's Tangibles (as portrayed in the conceptual framework) seems to have been the easiest construct to manipulate during implementation of interventions by the instructor (the researcher) in terms of having various devises to use; for example, social media platforms, direct calls to individual students and their personal e-mail accounts. This is consistent with Udo *et al's*. (2011) replacement of 'tangibles' by 'website content' to signal the online environment when assessing e-learning quality at a major public university in USA, arguing that the course website composes the major medium for e-learning and influences students' perception of quality. They argue that a SERVQUAL-based instrument comprising these dimensions best measures the quality of e-learning, and that traditional learning evaluation models and methods may be inappropriate in the e-learning environment. Amongst the interventions the researcher in this study implemented was to place course-related material on the course website ahead of class, and this encouraged attendance and participation in the online class. Agarwal *et al.* (2021) discovered that empathy, responsiveness, reliability, website content and privacy significantly affected students' satisfaction with e-learning quality. Thus, in this study, website content positively

affected students' satisfaction with Tangibles, hence physical evidence construct. Owing to the level of satisfaction of the students in the study with physical evidence, it can be seen that infrastructure and learning facilities are a necessity for students to attain learning goals. This is consistent with Sudirman *et al.* (2023) who discovered that the quality of infrastructure in Indonesian Private Higher Education significantly affects students' level of satisfaction.

5.3 Contribution

The study contributes to literature in various ways. Firstly, by focusing on the classroom encounter in online education, and considering the impact of 3Ps of the marketing mix which are controllable by the instructor, the study brings a new perspective. Secondly, by developing an instrument for measuring service quality specifically in relation to these 3Ps affecting service quality perception in the HE context. This model for assessing the quality of the online classroom service encounter, has been developed through gathering of views from CTL staff, DBA teaching staff and students – HE's major immediate stakeholders (Teeroovengadum *et al.*, 2016), who are directly involved in the teaching and learning activities. Reviewed literature, such as that of Agu (2022) which examined the influence of price (amongst other factors) on students' switching intentions for graduate education services, reveals that studies of this nature are lacking in developing countries, particularly in Africa. Thirdly, the study's approach of action research in interrogating the impact of the 3Ps in conjunction with selected dimensions of SERVQUAL, specifically those controllable by the instructor in the classroom encounter, addresses the scarcity of action research studies in developing countries, particularly in the African context. Green and Adekanmbi (2014) considered staff and student issues as they implemented action research to identify factors which affect service quality improvement at universities of technology in South Africa. Staff and student issues was represented by *people* (in terms of student-teaching staff interactions) in this study. Fourthly, online learning has been very recently adopted as a mode of learning at NUL and there has been no research done on this phenomenon in this context. The study could therefore, be considered exploratory, and as warranting a qualitative approach to allow for further descriptive studies on same. Fifthly, concerning interventions put in place during learning online, Marti and Bolliger (2022) observe that limited literature exists on the quality of online interventions during learning. Thus, this study attempted to address this gap as the researcher implemented interventions related to *people*, *process* and *physical evidence* and then observed the influence on students' perceptions of lecture service quality. On the basis of all the above, the study arguably makes valuable empirical and theoretical contribution to the knowledge-base. The study has also proposed an instrument that might be pertinent for measuring the quality of online teaching, although it needs further testing and development.

5.4 Recommendations

5.4.1 Recommendations for practitioners

Based on the findings, universities should invest more on technological infrastructure as they transit from onsite to online mode or introduce a blended mode or even when already exclusively using online mode of teaching and learning. Thuto learning management system at NUL leaves a lot to be desired by both the students and lecturers. Commenting on the inadequacy of online teaching aids at NUL, one participant asserted: "Thuto is not effective; it takes too long but WhatsApp and YouTube allow videos ahead of lecture; they should be made (WhatsApp, YouTube and thuto) one total system". Verma and Prasad (2017) specify that proper infrastructural support, especially in the classroom setting, augments students' learning. Thus, incorporation of such identified (identified by participant-lecturers and students) teaching and learning tools (such as WhatsApp, YouTube, audios and videos) to thuto as the learning management system can potentially improve lecture service quality offered under the online mode at NUL, while also meeting students' and lecturers' needs.

Online lecture service quality measurement should be understood, monitored and implemented on a consistent and systematic basis, such that it becomes a culture at NUL, rather than being voluntarily carried out by lecturers on an *ad hoc* basis. The Development Planning Office, through Quality Assurance Personnel at NUL should collaborate with CTL to enact/revise policies on teaching and learning, as well as those on lecture service quality evaluation, particularly the newly-introduced online mode.

CTL should be further capacitated to equip both lecturers and students on online teaching aids and teaching quality evaluation for online teaching and learning. For example, it is beyond comprehension that only five staff-members (including the Director) serve more than 10 000 student population (Academic Office, Students Record Office, 2022/2023 academic year) and all the NUL staff in their ICT needs and online teaching and learning needs in particular. Increasing the CTL staff complement, therefore, requires urgent attention.

DBA should embrace lecture service evaluation as an important component of their teaching activity, such that they keep on improving based on students' evaluation of their teaching practice. Such social media platforms as WhatsApp, which students are familiar with, and which they (students) recommended their incorporation into thuto and other teaching aids/material, should be used to facilitate evaluation of teaching, upon approval by relevant university authorities.

CHE should enforce standards and policies in HE while it considers devising a specific policy on online teaching and learning and its subsequent evaluation in the Lesotho HE sector.

5.4.2 Recommendations for researchers

The study has provided an exploratory research which may require 'expansion' in the form of digging further into the quality of lecture services offered online. Two facets may be considered here. Firstly, other dimensions of SERVQUAL, which are not directly controllable by the lecturer (that is, reliability and assurance), may also be included in the conceptual framework to determine their impact. For instance, reliability of technological teaching aids such as Internet and Wi-Fi has been singled out by participants in the study as being critical in their learning – the unreliability of thuto when used by all at a go has been a thorny issue for students in the study. The same skills that the students would have learned 'during the lecture' are later applied at workplace, and the student should confidently (hence *assurance a*s the SERVQUAL dimension) use the acquired skills. This component (assurance) thus, requires investigation using the suggested but expanded model.

The selected 3Ps of the marketing mix may need to be considered in relation to the other Ps outside the lecturer's control. For instance, 'product' in the HE context may mean a programme (Ivy, 2008) that the student graduates from. This element is arguably very critical for students since this is generally what the employers are interested in. Thus, it requires investigation in terms of how it impacts students' lecture service quality during their learning.

5.5 Limitations

The major limitation was that of focusing only on undergraduate students, yet NUL runs many postgraduate programmes. However, this focus was appropriate as undergraduate students form the bulk of NUL's student population. Furthermore, action research involves studying one's own practice, and all of the researcher's teaching at the time of data collection was at undergraduate level. Another limitation, linked to conducting action research of one's own practice (i.e. practitioner research) as a lecturer, was that students might have felt reluctant to share their views openly with their lecturer. To address this, fieldworkers (led by one CTL employee) were employed to gather some of the data.

One more limitation is that, the researcher had originally intended to re-interview the DBA staff after the interventions, to get their input on the interventions and instrument, but this unfortunately did not materialise due to time constraints.

The study was primarily qualitative and exploratory in particular, with the aim of understanding the important factors underpinning online lecture service quality, as part of the researcher's action research study into improving his online teaching practice. While an instrument that could potentially be used to measure such quality is suggested, this is offered simply as a starting point and requires further development and testing to arrive at a validated instrument. Future research could address this limitation.

5.6 Conclusion

The study has established the extent of significance which student place on 'how they are taught'; that is, the quality of lecture services. The newly-introduced mode of online at NUL has created even more anxiety for students – they doubt their skills, the way they are assessed and the platform NUL is currently using to conduct online teaching and learning.

The study has achieved a great deal in terms of the set objectives. It has been able to understand how undergraduate students at NUL, as well as lecturers perceive online lecture service quality at NUL.

The study has laid down a measurement instrument for NUL and other HEIs in Lesotho, to measure their online teaching quality. There are, however, gaps left by the study, particularly in terms of its failure to explore all the five components of SERVQUAL model and the 7Ps model for services marketing management, in assessing their impact on the lecture service quality, as perceived by students.

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APPENDICES

APPENDIX A

THE NATIONAL UNIVERSITY OF LESOTHO

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OFFICE OF THE REGISTRAR

14th January 2022

REF: REG/ADM-I .37 LML/hyml

Mr Griffith Mokorotlo

National University of Lesotho

Faculty of Social Sciences

Department of Business Administration

Roma 180

Dear Mr Mokorotlo

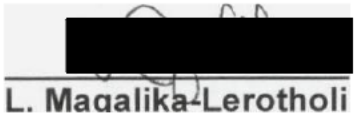
RE: REQUEST TO CONDUCT RESEARCH AT THE NATIONAL UNIVERSITY OF LESOTHO

The National University of Lesotho (NUL) is in receipt of your application to conduct research at this institution. The title of the Study is "Service quality of the online classroom experience in higher education: The influence of lecturer-controlled variables".

After careful consideration of all relevant facts, the University has agreed to allow you to continue with your research as requested. It is hoped that the research outcome will be beneficial to both the institution of Higher learning and the country at large.

By copy of this letter the NUL staff and students are requested to assist you to carry out your assignment.

Yours sincerely



L. Maqalika-Lerotholi

Registrar

cc: NUL Staff and Students

APPENDIX B

Questionnaire: Students - Enrolled in selected courses in the Department of Business Administration i.e. Strategic Management (Year 4), Integrated Marketing Communications (Year 4) and Services Marketing (Year 4).

In this questionnaire, you are asked to comment on various aspects of online teaching and learning in selected courses. The information that you provide will be used to assess the service quality of the online classroom experience at the National University of Lesotho, as influenced by lecturer-controlled variables. In particular, it will help the researcher (as an instructor for the selected courses) to improve online lecture service quality. The information shall solely be used for academic purposes and confidentiality is guaranteed since you will be filling the questionnaire anonymously.

Section A: Personal details

In this section, kindly fill information relating to you. Tick √ whichever box is appropriate

Age	

Gender	Female		Male		

Year of study	One		Three		Four	

Programme of study	

Section B

In this section, you are asked to rate various aspects of online teaching and learning

(i) Interaction between students and the instructor; Empathy (SERVQUAL)

Empathy refers to a lecturer's ability to observe students' needs and to have their best interest at heart.

Instruction: On a scale ranging from 0 to 4, indicate how often the following happen in your course. **0 = Strongly disagree, 1 = Disagree, 2 = Neutral, 3 = Agree, 4 = Strongly agree**

The lecturer	Tick √ the relevant box				
	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1. The teacher explains in advance, important information about the course, objectives, assessment criteria, evaluation system and mutual expectations of the teaching process, to me					
2. The lecturer shows aptitude in terms of communication skills, timeliness, attitude and friendliness, during interaction with students in online classes and tutorial sessions					
3. Online discussion groups established and led by the lecturer facilitate my learning and contribution to class discussion					
4. The feedback I get in online class and assignments helps me do better in this course					
5. The lecturer's knowledge of subject matter is sufficient					
6. The lecturer provides mentoring, caring and individualised attention to students in online class					
7. The lecturer takes an interest in my academic progress					
8. The lecturer makes an effort to help students develop professional and social skills and attitudes					
9. The lecturer has well-publicised convenient online contact hours					

10. The lecturer encourages and motivates students to do their best in the course					

(ii) Lecture service production process; Responsiveness (SERVQUAL)

The next set of questions is about the 'lecture service production process', which refers to production, delivery and consumption of lecture services, whereby a lecturer and students effectively co-act remotely.

Responsiveness refers to a lecturer's prompt responses to students' requests, such as answers to questions and suggestions in online setting.

Instruction: On a scale ranging from 0 to 3, indicate how often the following happen in your course. **0 = Never, 1 = Rarely, 2 = Often, 3 = Very often**

Teaching and learning activities	Tick √ the relevant box			
	Never	**Rarely**	**Often**	**Very often**
11. Effective discussions and/or questions are displayed during online lectures				
12. I am given clear instructions				
13. I am given relevant solutions to class-related problems				
14. I am given fairness during grading by the instructor				
15. Owing to the way it is conducted, I find this course interesting, intellectually stimulating and contributing to my academic development				

16. The lecturer provides accurate information regarding timetable, assignments, examination results, meetings and events, about the course				
17. The lecturer quickly, efficiently and professionally responds to student needs and inquiries				
18. The lecturer's professional conduct and the way he carries out teaching instill confidence in and reliability by students				
19. The lecturer has put in place mechanisms which students use to lay complaints about the lecture service and reflect their views and promptly deals with those				
20. The amount of contact I have with the lecturer in terms of online lectures, tutorials and consultation is sufficient				
21. The lecturer adequately complements theoretical explanations with practice aspects (illustrative examples, cases, exercises)				
22. The lecturer creates knowledge value displayed through course structure and suitable instructional methodology of delivery				
23. You are learning what you hoped to learn.				

(iii) Physical evidence; Tangibles (SERVQUAL)

The next set of questions is about the 'physical evidence' associated with the teaching process. Physical evidence in the context of online education relates to technological infrastructure which includes learning management systems, learning content management systems and authoring tools. NUL currently uses thuto as the learning management system.

T*angibles* in online education refers to advanced equipment, such that all technological devices aiding both teachers and students should be 'advanced'.

Instruction: On a scale ranging from 0 to 3, indicate how often the following happen in your course. **0 =**

Never, 1 = Rarely, 2 = Often, 3 = Very often

Classroom environment Tick √ the relevant box

	Never	**Rarely**	**Often**	**Very often**
24. Teaching materials aid lecture delivery				
25. Prescribed core-reading lists (textbooks and journals pertinent to the course) are available				
26. The quality of lecture equipment (e.g. the learning management system) meets my expectations in facilitating teaching and learning				
27. The quality of communication tools (such as thuto drop box and chat room) matches my expectations				
28. The material (handouts) provided for assignments and projects are adequate and helpful				
29. The assessment/grading by the lecturer is fair				
30. Up-to-date course content characterises this course				
31. Adequate preparation by the lecturer characterises this course				
32. Good presentation of lecture material by the lecturer characterises this course				
33. The course content is well spread over the duration of the course.				

34. The sequence of topics is well spread over the duration of the course				
35. The workload is well spread over the duration of the course				
36. The feedback I get in online class and assignments helps me do better in this course				

Section C: Concluding questions

1. Are there any issues that you would like to add, which have not been raised so far?

……

……

……
……

APPENDIX C

Interview guide: Centre for Teaching and Learning (CTL) staff

In this interview session, you are asked to furnish information on the online teaching and learning process undertaken by teaching staff, and the subsequent evaluation of lecture service quality by students as service recipients. Your views shall be used to improve online lecture service quality offered by the researcher (and colleagues in his department). The information

provided shall solely be used for academic purposes and shall be treated with confidentiality.

Section A: Introductory questions

1. What is your position/rank at CTL?
2. How long have you worked at CTL?
3. What specific role do you play at CTL?

Section B: Background/context

4. What specific role does CTL play in order to ensure provision of high-quality services to students by NUL?
5. How often do you engage in programme-benchmarking and meeting other requirements of the Council on Higher Education Lesotho, such that programmes offered by NUL are intellectually stimulating?
6. Does CTL advise faculties/schools on programme issues, class sizes and student workload?
7. How does CTL contribute to the academic development of lecturers?

8. Are there any mechanisms at CTL, for lecturers and/or students to report complaints about inadequacy of academic services?

9. How much student support services does CTL render? What is the nature of this support?

Section C: Monitoring of lecture quality at NUL

10. Are there any mechanisms in place to assess the quality of services offered by various academic departments/units within NUL? If yes:

    a) What mechanisms are used to assess quality?

    b) How often is quality assessed?

    c) How are the results disseminated to the relevant recipients?

11. What mechanisms have CTL put in place to ensure high quality online instructional practices amongst teaching staff?

    Probing/follow-up questions (if not already raised in the response to Q11):

    a) Does CTL conduct induction, refresher courses or specific training for existing and/or newly-recruited academic staff, to enhance their online lecture service delivery capability?

    b) Does CTL provide any assistance to technical teaching and learning activities carried out by lecturers?

12. Does CTL initiate or facilitate any lecture service quality evaluation process (among students)?

    a) How does this process work?
    b) How often does it occur?
    c) How does CTL ensure dissemination of the outcome of lecture service quality evaluation process to students and/or lecturers?

13. Is CTL aware of lecture service quality evaluations conducted by lecturers on an *ad hoc* basis?

Section D: Challenges of measuring lecture quality at NUL

14. What challenges does NUL face in attempting to measure lecture service quality consistently and systematically?

15. What issues arise in terms of measuring lecture service quality regularly?

16. How can the challenges that you have identified be addressed?

Section E: Concluding questions

17. Are there any issues that you would like to add, that have not been raised so far?

APPENDIX D

Interview-guide: Teaching Staff in the Department of Business Administration (DBA)

Notes

- In this interview, the terms 'lecture service quality' and 'quality of the classroom experience' will be used interchangeably
- The objective of this interview is to explore your expectations and perceptions of the quality of online classroom experiences, focusing on the influence of *lecturer-controlled variables – people, physical evidence, and process* (i.e. extended marketing mix elements).

In this interview, you are asked to furnish information on the online teaching and learning process and subsequent evaluation of online lecture service quality by students as service recipients. Your views shall be used to improve online lecture service quality offered by NUL instructors. The information provided shall solely be used for academic purposes and shall be treated with confidentiality.

Section A: Introductory questions/background questions

1. What is your position at DBA?
2. Which stream (specialisation area) are you in?
3. How long have you been in DBA as an instructor?

Section B: Lecturers' expectations and perceptions of online lecture service quality at NUL

4. In your opinion, what is a 'high-quality' online classroom experience, that is, a 'high-quality' online lecture service?

5. Is online lecture service quality evaluated at NUL, as you expect?

6. How often do you facilitate online lecture service quality evaluation by your students?

(i) Interaction between students and teaching staff

7. With regard to virtual interaction between students and teaching staff, what would you consider to constitute 'high quality' interaction?

8. To what extent do you think virtual interaction between students and teaching staff in the DBA meets your understanding of 'high quality' interaction?

    a) Do students prepare ahead, regularly attend and participate in online class discussions as you expect?

    b) What is your perception of the level at which students present, express and defend ideas, and reflect on problems, during online classroom activities?

    c) How do you give feedback to students - do you provide any additional feedback to students, on top of electronic grading? If so, how?

    d) Does the level at which students stimulate debates, themes and dialogue in online class, meet your expectations?

    e) Do you invite and virtually interact with other professionals from the industry in class-related activities, as you expect?

9. What do you think could be done in the DBA to improve the quality of virtual interaction between students and teaching staff?

(ii) Lecture service production process

The next set of questions is about the 'lecture service production process', which refers to production, delivery and consumption of lecture services, whereby a lecturer and students effectively co-act remotely. During production, a lecturer may be incorporating views of students from the previous lecture to improve the current one, while during delivery and consumption, students may be inquiring for clarity or contributing to the discussion by raising issues pertaining to the lecture service, thereby causing the lecturer go back and forth during the interaction.

10. With regard to the online lecture service production process, what would you consider to constitute 'high quality'?

11. To what extent do you think the online lecture service production process in the DBA meets your understanding of 'high quality'?

    a) Does NUL, through CTL, offer you any technical assistance related to online teaching methods, as you expect?

    b) What is your perception of the current student-teacher ratio in your courses?

    c) What impact does this ratio have on the quality of online lecture services that you render?

    d) Does students' level of engagement in courses, as reflected through enquiries in online class and subsequent consultations, meet your expectations?

    e) What is your perception about the students' academic writing style?

    f) In your perception, do students spend more time in class than self-learning?

12. What could be done in the DBA to improve the quality of the lecture service production process?

(iii) Physical evidence

The next set of questions is about the 'physical evidence' associated with the teaching process. Physical evidence in the context of online education relates to technological infrastructure which includes learning management systems, learning content management systems and authoring tools. NUL currently uses thuto as the learning management system.

13. With regard to the physical evidence of the online teaching process, what would you consider to constitute 'high quality'?

14. To what extent do you think physical evidence in the DBA meets your understanding of 'high quality'?

    a) What is your perception of teaching aids that are within your control? Do they meet your expectations?

    b) Are the allocated electronic infrastructures ideal for your courses?

15. What could be done in the DBA to improve the quality of physical evidence?

Section C - PO: To propose a way of measuring lecture service quality at NUL

16. What do you think is the best way to assess the quality of online lecture services at NUL?
17. How often do you think this exercise should be conducted?
18. By whom do you think the exercise should be conducted?

Section D: Concluding questions

19. Are there any issues that you would like to add, which have not been raised so far?

APPENDIX E

Focus group guide: Students

In this session, you are asked to comment on various aspects of the online teaching and learning process that your student-members have been receiving in selected courses in the Department of Business Administration (i.e. Strategic Management, Integrated Marketing Communications, and Services Marketing). Your input shall be used to improve online lecture service quality. The information provided shall be treated with confidentiality and will in no way affect your academic welfare.

Section A: Introductory questions/background questions

1. What level of study are you in?
2. Which programme of study (specialisation) are you following?
3. What is the name of your academic association?
4. How long have you been in this academic association?
5. What specific role does your association play in the university (NUL), particularly in the Department of Business Administration (DBA)?

Section B: RO_1 – Expectations and perceptions of lecture service quality

6. In your opinion, what is a 'high quality' virtual classroom experience, that is, a 'high quality' online lecture service?

(i) Interaction between students and teaching staff

7. With regard to virtual interaction between students and teaching staff, what would you consider to constitute 'high quality' interaction?

8. To what extent do you think interaction between students and teaching staff in the specified courses meets your understanding of 'high quality' online interaction?

    a) How often do you virtually meet the teaching staff to express your expectations, or to provide feedback, on online lecture service that they render?

    b) What is your perception on the extent to which the lecturer provides motivation and support in student (extracurricular) activities and demonstration of flexibility and adaptability to new situations?

    c) Is the culture of sharing and collaboration among students and lecturers prevalent as you expect?

    d) What is your opinion about the effect of increasing enrolment at NUL, on online lecture service quality, considering the current student-teacher ratio in the specified courses – i.e. Strategic Management, Integrated Marketing Communications, and Services Marketing

9. What could be done in the specified courses to improve the quality of virtual interaction between students and teaching staff?

(ii) Lecture service production process

The next set of questions is about the 'lecture service production process', which refers to production, delivery and consumption of lecture services, whereby a lecturer and students effectively co-act remotely. During production, a lecturer may be incorporating views of students from the previous lecture to improve the current one, while during delivery and consumption, students may be inquiring for clarity or contributing to the discussion by raising issues pertaining to the lecture service , thereby causing the lecturer go back and forth during the interaction.

10. With regard to the online lecture service production process, what would you consider to constitute 'high quality'?

11. To what extent do you think the online lecture service production process in the specified courses meets your understanding of 'high quality'?

    a) Is this process interactive enough as you expect, as far as co-production of online lecture service by a lecturer and students is concerned?

b) What is your perception about the instructional practices, student workload, assessment, and feedback to students? Do they meet your expectations?

c) As far as online teaching and learning activity is concerned, does your association play a significant role towards student support services?

d) In your perception, does the lecturer value feedback from students, on online lecture service quality evaluation?

e) Does your lecturer (in the selected courses) frequently conduct online student-led discussions on course-related matters, especially during revision periods, for better performance in respective modules?

f) Does the lecturer display knowledge to subject matter and response to questions in various platforms organised by your association? To what extent does he meet your expectations?

12. What could be done in the specified courses to improve the quality of the online lecture service production process?

(iii) Physical evidence

The next set of questions is about the 'physical evidence' associated with the teaching process. Physical evidence in the context of online education relates to technological infrastructure which includes learning management systems, learning content management systems and authoring tools. NUL currently uses thuto as the learning management system.

13. With regard to the physical evidence of the online teaching process, what would you consider to constitute 'high quality'?

14. To what extent do you think physical evidence in the specified courses meets your understanding of

'high quality'?

a) Does the quality of such teaching materials as handouts meet your expectations?

b) Does the reliability and functionality of the online teaching infrastructure meet your expectations in facilitating teaching and learning?

c) Does the quality of such communication tools as thuto drop box and chat room, which the lecturer uses occasionally, match your expectations?

d) Does the virtual classroom setup in terms of accessibility, facilitate online teaching and learning?

15. What could be done in the specified courses to improve the quality of physical evidence?

Section C: PO – Measuring lecture quality at NUL

16. What do you think is the best way to assess the quality of online lecture services at NUL?
17. How often do you think this exercise should be conducted?
18. By whom do you think the exercise should be conducted?

Section D: Concluding questions

19. Are there any issues that you would like to add, which have not been raised so far?

APPENDIX F

Observation schedule

Name of observer:

Directions: observe the classroom environment, teacher behaviour, learner participation and interaction on the following elements and mark according to their occurrences.

VO = Very Often, O = Often, SM = Sometimes, S = Seldom, N = Never

Sr No.	**Elements observed**	**VO**	**O**	**SM**	**S**	**N**
1	Teacher provides essence of high-quality virtual classroom experience as he interacts with students					
2	Teacher provides situations for the introduction of the lesson					
3	Teacher introduces ideas appropriate to content learning					
4	Teacher uses the material that are helpful for assignments and projects					
5	Teacher carefully listens to students' ideas in order to help them to develop their skills					
6	Teacher values feedback from students					
7	Teacher uses such communication tools as thuto drop box and chat room to facilitate discussion and/or feedback with students					
8	Teacher displays effective discussions and/or questions during online lectures					
9	Teacher ensures provision of such lecture equipment as the learning management system to facilitate teaching and learning					
10	Teacher provides learning resources (for example, websites), pedagogy and technology that improves quality in e-learning					

11	Teacher produces and adequately utilises PowerPoint slides in the production and delivery of online lecture service					
12	Teacher delivers online sessions, uploads materials and conducts online assessments in line with known class schedules					
13	Teacher provides recorded lessons when students request them for clarity					
14	Teacher provides various situations related to subject of the study to get more reflections					
15	Teacher suggests new things to look and try, to encourage further experimentation and thinking					
16	Teacher encourages dialogue in relation to course-related issues					
17	Teacher relates online classroom discussions to social matters					
18	Teacher makes connection between content ideas					
19	Teacher possesses accurate information about content					
20	Teacher enquires about students' understanding of the concept before sharing their understanding of the concept					
21	Teacher posts expectations for discussions for the next lecture					

APPENDIX H

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

03 May 2022

Griffith Chief Joseph Mokorotlo (216072673)
School Of Man Info Tech & Gov
Westville Campus

Dear GCJ Mokorotlo,

Protocol reference number: HSSREC/00004123/2022
Project title: Service quality of the online classroom experience in higher education: The influence of lecturer-controlled variables
Degree: PhD

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 25 April 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 03 May 2023.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,

Professor Dipane Hlalele (Chair)

/dd