

**PERCEPTIONS OF NURSE EDUCATORS TOWARDS ONLINE
EDUCATION IN A PUBLIC NURSING COLLEGE IN THE KWAZULU-
NATAL PROVINCE**

by

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DECLARATION

I declare that **“PERCEPTIONS OF NURSE EDUCATORS TOWARDS ONLINE EDUCATION IN A PUBLIC NURSING COLLEGE IN THE KWA-ZULU NATAL PROVINCE”** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. This work has not been submitted before for any other degree at this or any other institution.

SIGNATURE



DATE: 2023/01/31

Saviten Govender

DEDICATION

I dedicate this dissertation to my grandparents, my mother (Oomadevi Govender), my wife (Sorushka Devan) and my children, Dharishan and Mathoorika

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I would like to acknowledge the Supreme Reality in all his manifestations and specifically those who were involved both directly and indirectly in me completing this dissertation.

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Thank you immensely. May you always be blessed with good health, peace, and prosperity!!!

ABSTRACT

Background: The 4th industrial revolution has brought about a plethora of changes in the educational landscape. While online education is growing at a tremendous rate in higher education, in South Africa, its use in Nursing Education is a relatively new phenomenon.

The purpose of the study: The purpose of the study was to explore and describe the perceptions of nurse educators have towards online education.

Methodology: An explorative, descriptive, qualitative research design was used to collect data in the form of individual face-to-face semi structured interviews from nurse educators at 3 selected campuses that form part of the greater public nursing college in the province of KwaZulu-Natal. Data saturation was reached after 21 interviews. The sampling method used was convenience sampling. The interviews were audio recorded and later transcribed verbatim before the data was analysed using a computer assisted qualitative data analysis software (CAQDAS), namely NVivo.

Findings: The four themes that emerged from the study included: perceived advantages of online education; perceived disadvantages of online education; perceived barriers for effective implementation of online education; and the perceived measures that can be used to promote the use of online education.

Conclusion: The study concludes that online education is perceived by nurse educators to have both advantages and disadvantages. Therefore, in order to promote the use of online education modalities in the province, it is vital that institutions attend to those perceived disadvantages whilst enhancing perceived advantages. The study determined that the perceived barriers to the effective implementation of online education included lack of infrastructure, inadequate technology skills as well as little or no support. Therefore, successful implementation of online education is dependent upon collaboration amongst all stakeholders.

Recommendations: It is recommended that nursing education institutions provide adequate infrastructure and equipment; proper training and support; improves the attitudes of nurse educators; reduces the potential for dishonesty during online assessments; encourages innovative ways of teaching and learning; have procedures

and policies in place that support online education; and have clear predetermined working arrangements to make online education suitable to the practical component.

KEY TERMS: KwaZulu-Natal Province, Nurse Educators, Online Education, Perceptions.

LIST OF ABBREVIATIONS

CAQDAS	Computer Assisted Qualitative Data Analysis Software
CHE	Council of Higher Education
HEI	Higher Education Institution
ICT	Information, Communication and Technology
NEI	Nursing Education Institution
SANC	South African Nursing Council

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CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

It is clear to see that technology has revolutionized and continues to revolutionize every aspect of human lives. From an individual perspective to societies and industries at large, things that were only once seen in science fiction movies are now in the palm of our hands. From the banking sector to security through agriculture to the educational sector, technology has transformed, revitalised and mutated the way we function as a human race. Mlambo, Chukwuere and Ndebele (2018:1) indicate that today's world has become more information- and knowledge-based due to an increased dependence on information, communication and technology and the demands for an innovative and productive citizenry to function within this new economy, meaning that everyone should grasp technology as it is paramount for our survival.

The 4th industrial revolution or the Era of Technology has brought about major advancements that have implications for the higher education arena. One of these implications is the introduction of online education in higher education. Pete, Coopasami and Knight (2017:305) add that the implementation of online education is now a necessity for any higher education institution that seeks recognition as a 21st century university. The authors also maintain that online education has become a well-established global practice which enables active, individual, and flexible learning. Conclusively, online education has the potential to democratize access to education and provide opportunities for students who may not have access to traditional education as well offering greater flexibility with the student being able to learn at his own pace (Hodges 2020).

According to the South African Nursing Council's (SANC) Nursing Education and Training Standards (2019), nursing education and training across South Africa is responding to the changing needs, developments, priorities and expectations in health and healthcare. SANC's standpoint on the transition of Public Nursing Colleges into higher education, indicates that SANC will continue to support Public Nursing Colleges when working towards improving accreditation processes; provision of curriculum guidelines; nursing education and training standards; relevant regulations; and scopes

of practice. This means that although nursing in South Africa is currently included in higher education institutions, it is imperative that nursing colleges adopt methods of online education.

Gazza (2017:343) adds that online education has now become a key instructional delivery method in nursing education. Nursing has adapted to the changing educational environment by including online delivery of nursing education (Frazer, Sullivan, Weatherspoon & Hussey 2017:5). Ramos-Morcillo, Leal-Costa, Moral-García, and Ruzafa-Martínez (2020:1) add that the state of panic surrounding the COVID-19 pandemic led to urgent change from traditional methods to online education for nursing students.

Mlambo *et al.* (2018:1) suggests that achieving a new knowledge economy requires technology-oriented teachers who can apply ICT skills in the teaching and learning process. Furthermore, the authors suggested that academic institutions and teacher colleges should prepare educators to understand the place of technology in today's classroom setting. Smith and Crowe (2017:1) mention that having a strong relationship between nurse educators and nursing students supports student engagement in learning online. They add that with continually increasing online nurse education, understanding these relationships is important to improve nursing education and by extension nursing practice.

The public nursing college offers several basic and post-basic programmes that are accredited by the SANC and the Council of Higher Education (CHE). Maharaj (2014:v) conducted a study on the status of information technology systems within campuses of the public nursing college in the Kwa-Zulu Natal (KZN) province of South Africa. The study highlighted the need for the public nursing college to be on par with higher education institutions globally in terms of access to and usage of ICT (Maharaj 2014:iv). The same public nursing college has made known its intentions of implementing online education. However little is known about the perceptions of nurse educators with respect to online education in the above mentioned public nursing college. Hence the need for this study.

1.2. RESEARCH PROBLEM

In the KZN nursing campuses, online education is a relatively new development. Due to the pandemic, nurse educators had to work from home while continuing with the facilitation of teaching. It was noticed that many difficulties were experienced with respect to the usage of ICT and online education. While educators stated that they enjoyed teaching online and thought it more productive, many educators complained of issues such as poor connections; lack of equipment; or lacking the “know how” to use online teaching methods.

Nurse educators are in the process of adapting this new teaching and learning methodology. As this is the prevailing situation of the new normal brought about by the pandemic, it has become necessary to determine those nurse educators’ perceptions of online education (Khan, Vivek, Nabi, Khojah & Tahir 2021:14). As there is no research has been carried out to date at the public nursing college since the introduction of online education the perceptions of nurse educators are not known. Hence, the researcher saw the need to explore and describe these perceptions towards online education by nurse educators.

1.3. PURPOSE OF THE STUDY

The purpose of this study was to explore, describe and interpret the perceptions of nurse educators towards online education at the public nursing college, in the Kwa-Zulu Natal province, South Africa.

1.4. RESEARCH OBJECTIVES AND QUESTIONS

The research objectives for this project were as follows:

- To explore and describe the perceptions of nurse educators towards online education;
- and
- To make recommendations about online education at the selected public nursing college.

The research questions for this project were as follows:

- What are the perceptions of the nurse educators towards online education; and,
- What recommendations can be made regarding online education at the selected public nursing college?

1.5. SIGNIFICANCE OF THE STUDY

- The researcher anticipates gaining insight into the perceptions and readiness of nurse lecturers towards online education. This is important as online education is becoming the inevitable future. Nurse lecturers in the public nursing college will play a major role in facilitating this method of teaching.
- If the stakeholders, including the authorities and decision makers, are made aware of the phenomena that will be generated by the study, they could possibly use it in applying appropriate strategies in the role out of online education.
- The findings of the study could also cause nurse lecturers at other campuses not participating in this study aware that others share the same sentiments and apprehensions about online education. This could bring about a certain amount of cohesion in fast tracking and usage of online methods of teaching.
- The authorities, through this study could be made aware of misconceptions that nurse lecturers have and can provide alleviating information.
- Online education has taken off in South Africa with many public and private higher education institutions making use of this mode of teaching and learning. The study could add to the body of knowledge encompassing both the health and higher education arena in the province.

1.6. DEFINITION OF KEY CONCEPTS

- **Nursing Education Institution (NEI):** refers to a university, nursing college or nursing school which is accredited by the South African Nursing Council (SANC) in terms of the Nursing Act (Act 33 of 2005) to offer nursing programmes (South African Nursing Council [SANC] 2019:5). In this study, NEI refers to the three campuses accredited by the South African Nursing Council under the Nursing Act to offer Nursing Education and Training in the Kwa Zulu Natal province.

Nurse Educator: refers to a Professional Nurse with an additional qualification in Nursing Education and is registered as such with the SANC (SANC 2019:5). In this study, nurse educator refers to persons registered under the Nursing Act to providing teaching and learning at the three selected campuses.

- **Online Education:** is defined as all forms of teaching and learning delivered using the internet (Picciano 2018:8). In this study, online education refers to the methods of facilitating teaching and learning at the selected campuses.
- **Perceptions:** this refers to a belief or opinion, often held by many people, based on how things seem. (Cambridge Dictionary). Perception has to do with how a given phenomenon is interpreted. In this study, perceptions refer to the opinions of the nurse educators with respect to online education at the selected campuses.

1.7. OUTLINE OF THE THESIS

Chapter 1: Overview of the study

Chapter 2: Literature Review

Chapter 3: Research design and Methodology

Chapter 4: Results and Literature Control

Chapter 5: Conclusions, Limitations and Recommendations

1.8. SUMMARY

In this chapter the introduction and background to the study, research problem, study purpose, research objectives and questions, significance of the study as well as definition of key concepts was discussed. The next chapter focuses on the literature review related to this study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter provided an overview and introduction to the study on nurse educator perceptions towards online education in nursing education. In this chapter available literature on the topic will be discussed as part of the literature review.

A literature search using the key words “perceptions of educators” “online education” and “Higher education” was conducted on various scholarly websites. The researcher found many different themes and categories that emerged from many differently designed qualitative and quantitative studies from a variety of countries in the world. The search also revealed relevant studies from other medical professions and led the researcher to various government and international forum websites.

In this literature review, the researcher firstly, defines a literature review then goes on to explicate the term ‘online education’. The various broad themes that were found in the literature are then discussed in detail including: online education against the backdrop of COVID-19; ICT infrastructure and online education; training for online education; age and general experience; experience in ICT; the perceived benefits of online education; and the perceived disadvantages/ challenges of online education.

2.2 DEFINING A LITERATURE REVIEW

A literature review is the analysis, synthesis, and comprehensive summary of previous research on a specific topic. Brink, Van der Walt, and Van Rensburg (2018) add that the literature review assists in establishing the known from the unknown on the topic and that the existing studies serve as a basis for the current study. One requirement of a literature review is to unravel the latest and most pertinent information about a researchable area and to determine the gaps in knowledge that may exist (Gray, Grove & Sutherland 2017). Literature reviews include not only research reports but other such information as clinical practice articles, theories and other professional sources (Gray *et al.* 2017). The literature review should be comprehensive covering all relevant and supporting data which may include dissertations, journal articles, theses, and online sources (Brink *et al.* 2018).

It has been found that researchers who, when conducting extensive literature reviews prior to any exploratory descriptive qualitative studies, have often found a lack of research on the topic of interest. This lack of knowledge supports the need for the exploratory descriptive qualitative study. After completing data collection, the researcher will then go on to compare the findings with the existing literature. This means that when conducting exploratory-descriptive research, reviewing the literature is conducted before and after data collection (Gray *et al.* 2017). This statement runs parallel to the researchers' intentions for this study with regards to the literature review.

2.3 ONLINE EDUCATION

"The 4th Industrial Revolution (4IR) is seen as the pervasiveness of digital technologies that are fusing the physical, digital, and biological worlds, and affecting everything about human existence, in particular economies and industries" (Nzimande 2017). This statement made by the Minister of Higher Education in South Africa, Blade Nzimande reflects this technology phenomenon and how it has become pertinent in everyday life including this current literature review. The ubiquity of information technology influences all aspects of our lives from the way we work to interacting with others to processing data into information to analysing and sharing information to entertaining ourselves (Palvia, Aeron, Gupta, Mahapatra, Parida & Sindhi 2018). However, the converse of this is that it can pose a hazard to the African continent by further widening the inconsistent worldwide economic growth (Mbangwa & Mthembu 2020) This statement further signifies the need to embrace this phenomenon, none more so than in the arena of education.

Picciano (2018) defines Online education as all forms of teaching and learning using the internet. Online education in its various modalities has been consistently increasing globally due to the eruption of new technologies, international adoption of the internet and the need for a workforce that is trained in the ever-evolving digital economy (Palvia *et al.* 2018).

"Online education" is a term used synonymously with terms such as "e-Education" and "e-Learning" and has two basic forms which are synchronous and asynchronous. In the synchronous form, communication is delivered and received in real time and involves live interaction between the sender and receiver. In its asynchronous form,

communication is not live but is delayed and maybe received at a later stage. Another important concept to mention here is that of “Blended learning” which combines traditional face-to-face classroom teaching with an online modality (Yatigamma & Wijayarathna 2021).

Palvia *et al.* (2018) mentions that South Africa is amongst the most developed African countries with a relatively large digital infrastructure with clear online education policies in place. Although online education is a means of reaching the disadvantaged and marginalised in South Africa, students still encounter obstacles in learning (Queiros & De Villiers 2016). Mpungose (2020) agrees, claiming that the main obstacle to effecting online education is the digital divide in South Africa and suggests that free data band width, free physical and online resources as well as information centres will lessen this divide. Mpungose (2020) also mentions that because of this there is a major need for investing in the upgrading of resources at both universities and at community level.

2.4 ONLINE EDUCATION AGAINST THE BACKDROP OF COVID-19

The World Economic Forum (2020) explains how even before the COVID-19 pandemic, there was consistent growth in education technology, and global investments in online education were already estimated to reach US\$350 billion by 2025 from \$18.6 billion in 2019. Since COVID-19 there has been an explosive surge in the use of online learning software, language apps, virtual tutoring, and video conferencing tools amongst others. Throughout the world, depending on the timing of infection rates, most, if not, all, Higher Education Institutions switched from the traditional face-to-face classroom teaching to various modes of online teaching. While it remains unclear as to how effective the teaching and learning was, due to the many obstacles and challenges, researchers all over the world saw it as an opportunity to unravel the dynamics that initiated and maintained online education. Interesting findings from studies related to online education against the COVID-19 pandemic backdrop will be discussed further in this section.

Kaqinari, Makarova, Audran, Döring, Göbel, and Kern (2021) conducted a study surveying lecturers from various nations and their use of educational technology for emergency online teaching. They reported that the use of educational technology

significantly increased post pandemic when compared to pre-pandemic at universities which ensured the continuity of education. The study found that the English university reported a high usage of educational technology both before and after the pandemic while the French, German and Swiss universities reported relatively low use before as well as during the pandemic. The above finding suggests that pre-pandemic use influenced the use of educational technology post pandemic.

Another interesting finding by a study conducted by Moralista and Oducado (2020) to determine perceptions toward online education among faculty in a State College in the Philippines during the pandemic reported that older faculty tended to favour online education during the pandemic as they may be inclined to believe they were more at risk of developing the disease in the traditional classroom as opposed to working in the virtual environment.

A study by Duc-Long, Thien-Vu, and Dieu-Khuon (2021) conducted in Vietnam found that the three outbreaks of COVID-19 had a positive impact on the developmental orientation of online learning within the country's higher education level. Even though during the outbreak there was resistance and dis-satisfaction to online learning, Vietnam has recorded some remarkable achievements in online education (Duc-Long *et al.* 2021).

A qualitative study conducted in Namibia explored how COVID-19 assisted in the enhancement of online learning and teaching skills of nurse educators who reported that COVID-19 had enabled them to acquire new skills and gain knowledge on the various platforms available to them as well as the institution acquiring Information Technology (IT) infrastructure and equipment (Shindjabuluka, Ashipala & Likando 2022). Furthermore, the study reported that some of the challenges discussed by participants was that the whole process was introduced unexpectedly and was fast tracked (Shindjabuluka *et al.* 2022). Similarly, a case study conducted in China by Bao (2020) also found that, against the COVID-19 backdrop, educators faced challenges such as lack of online teaching experience, limited preparation time, and lack of support from educational technology teams.

Studies that revealed various other themes will be discussed under the relevant sections. Those that included COVID-19 as a backdrop included the study by Shrestha, Haque, Dawadi (2022) that explored teachers' and students' experiences of

online education during the pandemic in the context of higher education in Bangladesh and Nepal; Senol, Lesinger, and Çaglar's (2021) study aimed to evaluate online education offered by the universities during COVID-19. Additionally, the study of Ann and Aziz (2022) which explored and compared the perceptions of six post-graduate East-African students and lecturers at the Pan Africa Christian University in Kenya on learning leadership online versus on-campus. In a study conducted by Hako (2021) in Namibia it was reported that flexibility, ability to teach large classes, lecturers and students' interaction and engagement were amongst the benefits presented by the use of online teaching and learning during COVID-19 pandemic. Paudyal and Rana (2021) analysed university lecturers and students' experience of online modes of learning in the COVID-19 situation. Amzalag, Shapiraand and Dolev (2022) aimed to investigate behaviours in exams held for the first time during the COVID-19 pandemic, and to elicit students' and lecturers' perceptions of students' academic dishonesty (AD) during this period; Meri-Yilan and Koruyan (2021) investigated English language lecturers' perceptions on the transition of classroom teaching to online education because of the outbreak of COVID-19 pandemic; Tuma, Nassar, Kamel, Knowlton, and Jawad (2021) examined the challenges and outcomes of a newly implemented distance education curriculum; Mahmood (2020) explored different instructional strategies that can help in implementing online teaching in higher education. The study formulated different notions for online education in developing countries.

2.5 ICT INFRASTRUCTURE AND ONLINE EDUCATION

ICT not only increases economic growth in both high income and low-income countries but poor countries also tend to gain more from the ICT revolution. These findings come from a study that employed a panel of 123 countries consisting of 45 high income countries, 58 middle income and 20 low-income countries from 2002 to 2017, by Appiah-Otoo and Song (2021).

As we head into the 4th IR it has become more important that African countries give ICT development and improved digitalization the attention it deserves. Although African countries are faced with many disadvantages and challenges, ICT does remain high on the priority list as Africa seeks to keep up with the developed world in improving its trade, tourism, education, and the general lives of people.

With regards to the current literature review it was found that educators considered poor ICT infrastructure specifically internet connectivity being a major factor that impeded the implementation of higher education especially in the developing countries. A study conducted by Dube *et al.* (2021) on the challenges and benefits of online teaching during the COVID-19 pandemic experienced by educators at a University in Namibia found that although there were many benefits of online education, internet connectivity and availability posed a significant challenge. After examining the opinions of academics at the University of Ibadan in Nigeria, Nwagwu (2019) mentions that readiness in terms of finance, training, ICT equipment, and online learning materials were significant deterrents to Nigerian universities adopting online education. Shindjabuluka *et al.* (2020) concurs with the above studies and also found that COVID-19 opened a doorway for institutions to equip themselves with infrastructure such as computers and to overhaul their internet connectivity and technical equipment. Mpungose (2020) also refers to the digital divide in South Africa and how it results in challenges to students realising the full potential of online education.

In developing countries outside the African continent, Paudyal and Rana (2021) conducted a study in Nepal and found that online education was not a sustainable mode of learning, as students from remote rural villages still do not have internet access and access to digital devices. This suggests that more investment should take place in ICT infrastructure in rural areas so students can be afforded opportunities for learning using ICT equipment. Shrestha *et al.* (2022), after conducting a study in Nepal and Bangladesh that explored student and educator experiences of online education found that power cuts as well as the poor internet networks posed challenges to the implementation of online education. The educators from both these countries believe that technological constraints as well as a lack of experience in using technology posed the biggest challenge to learners progressing in an online environment. Another interesting fact that arose from this study was that the majority of teachers from both countries used laptops and mobile phones as opposed to desktop computers and tablets for their online education. This indicates their preference for devices. Joshi (2021) explored the implementation of effective e-learning through Moodle, again, technical issues were found to be the main issue. The study also found that the students may have used excuses such as lack of connectivity, network issues and

poor audio and video quality not to attend online classes. This means that the poor infrastructure can give students loopholes to not attend classes.

In Russia, the article by Dyatlov, Alexander, Kovalev, Vitaliy, Latsveeva and Alexandra (2022) analysed the possibility of online education to ensure the quality of higher education. The study reported there was a lack in the required amount of logistical and informational resources, manifested by poor internet connection, small number of classrooms equipped with suitable technical equipment and the absence of training simulacrum programs. Dyatlov *et al.* (2022) also mentions that the provision of IT resources is not possible if the authorities do not invest. In Iraq, a study conducted by Tuma *et al.* (2021) also pointed out challenges with the technology available to educators as well the unreliable internet connection. Moralista and Oducado (2020) found that in the Philippines, the internet connections was also a problem.

In contrast to the above findings, Abdelaziz (2022) conducted a study in America (one of the most developed countries in the world) in two distinct higher education institutions. The respondents receive online instruction from two distinct higher education institutions (the University of Florida and the Florida State University). The study found that participants were positive towards online education. The factors that promoted this reaction included accessibility to the internet, ease of connection and the technical help that was made available for them. This points to the fact that there is large divide in terms of ICT infrastructure between the developing and developed countries. Also from the above literature we can conclude that reliable ICT infrastructure can promote a positive orientation towards online education.

2.6 TRAINING IN ONLINE EDUCATION

In an ideal situation, educators should receive in-depth training and preparation on an online programme prior to it being launched. The instruction should be engaging and allow participants ample time to become familiar with the technology before it can be implemented live (Adams 2020). From the literature, some studies indicated that educators had received teacher training prior to teaching online such as in the study by Junus, Santoso, Putra, Gandhi and Siswantining (2021) whose findings suggested that lecturers had received prior training to host online classes in Indonesia. The study

reported that this accelerated the knowledge and skills of the educators and allowed them to be more prepared when hosting online classes during the pandemic.

However, there were many studies where educators were required to teach online without any prior or very little training. The latter could have also been because of the rapid emergence of the COVID-19 pandemic which caused the sudden shift from face-to-face to online classes.

Shrestha *et al.* (2022) found that in Bangladesh and Nepal, although there was some training to host online classes, this was not enough to cope with the challenges of hosting online classes during the pandemic. This study's participants suggested that training to boost students' morale, training to assist students psychologically as well as counselling classes for educators would be useful in assisting them psychologically. Mbongo *et al.* (2021) also established that in Namibia, a very limited number of educators received any formal training in computer skills. Some lecturers reported that what training they received had been short courses or workshops. Despite this, many felt that they still were not prepared for the complexity of online teaching. This was also the case in a state college in the Philippines where Moralista and Oducado (2020) found that most of the educators had intermediate computer competency levels and no training in teaching online.

Paudyal and Rana (2021) found that during the COVID-19 pandemic even though initially lecturers were intimidated by the advent of online education their consistent attempts to implement the new strategy enabled them to develop some level of competence and confidence in executing online teaching methods. This was in the absence of any ICT training. Lack of computer skills of rural educators is not uncommon in South Africa, as determined by Dube (2020). The research participants reported that many rural educators in South Africa are unable to use online teaching methods which makes it difficult for these educators to help students.

From the above discussion it can be deduced that training in online teaching strategies would be the ideal and educators prefer training as it increases their competencies as well as their confidence. However, it is noted that in most developing countries there is an absence of training. The researcher also notes that initiatives taken to learn how to conduct education in the online learning environment also proves fruitful as in Paudyal and Rana (2021).

2.7 AGE AND GENERAL EXPERIENCE

From the available literature it is not clear if age and/or experience influences educators' perception towards online education. While some studies indicated that age does not influence on perceptions towards online education, some studies found that older educators are less in favour of online education, while in other studies that younger educators are more in favour of online education.

Jegede (2009) found that the age was not a factor when considering the competence, attitudes and usage pattern of ICT of higher education educators in Nigeria. The study also found that age did not affect the time used on ICT. In the University of Ljubljana in Slovenia, Keržič, Danko, Zorko, and Dečman, (2021) concur with Jegede (2009) findings that age was not a factor in instructional ICT use however, some age related differences in personal ICT use did exist.

In contrast, a study conducted by Shambour and Abu-Hashem (2020) found that younger lecturers perceived online education more positively and were more willing to move from traditional teaching to online modalities than the older lecturers. The younger lecturers also felt that they received more motivation from the institution towards implementing online methods than the older lecturers. Kaqinari *et al.* (2021) also found that older lecturers made less use of information and educational technology in comparison to the younger educators.

In contrast to the above studies, Moralista and Oducado (2020) found that older lecturers with more teaching experience and higher academic rank were more inclined towards online education than their younger counterparts. This study was conducted during the COVID-19 pandemic which could have had an influence on the perceptions of older educators as they might have feared traditional face to face classes.

2.8 EXPERIENCE IN ICT

Lack of experience in technology use is one of the biggest challenges to online education (Shrestha *et al.* 2022) and previous studies have indicated that educators would prefer more training and practise on how to use the different tools and strategies prior to implementing online methods (Shindjabuluka *et al.* 2022)

Many studies have indicated that experience in ICT and teaching online has a major influence on usage. According to Kaqinari *et al.* (2021) not only does the experience of educators in educational technology have a positive effect on teaching online but educators also feel more competent and satisfied. Anthony (2021) also found that experience in IT usage significantly impacts the educators' perceptions towards online education initiatives in higher education. Bao (2020) concurred with the above studies by adding that the technical skills of online teaching were far greater than the traditional in-class teaching for inexperienced educators, and the experienced found it easier to adapt.

2.9 PERCEIVED BENEFITS OF ONLINE EDUCATION

The perceived benefits of online education are broad and most studies seem to agree with each other with respect to the benefits. The following are some of the perceived benefits as taken from the literature. Online teaching can promote flexible learning for the student and develop learner autonomy; large classes can be taught; interaction and engagement between the educator and student is increased; learning opportunities for the educator are also increased; educators can teach from the comfort of their own home; students can record lesson and access it at their convenience; it is easier to mark assessment activities; shy students who would normally not say anything in class were partaking in discussions online; and online platforms make it easier to share learning material (Mbongo *et al.* 2021; Meri-Yilan & Koruyan 2021).

Educators perceive that online education saves participants time, commuting expenses, and overall energy as they were able to teach from the comfort of their homes. The participants felt that they can focus more of their attention on preparing and delivering learning content than on more mundane problems such as parking, traffic and other problems which arose through adherence to the traditional classroom. Shrestha *et al.* 2022 concur by adding that positive aspects of online classes included,

no need to commute, having more time with family, and more time for study and lesson planning.

Joshi (2021) found that teachers felt online education was more flexible; convenient; and easily accessible; scheduled as per their convenience; made evaluation of assessments simpler; and improved their skills as a teacher. Abdelaziz (2022) found that the favourable experiences of the participants in two American universities included ease of connectivity; availability of technical help; self-paced learning; convenience; cost effectiveness; and adaptability of the program.

From the above literature we can see that there are many advantages to online education and most of the authors are in agreement with these advantages.

2.10 PERCEIVED DISADVANTAGES AND CHALLENGES OF ONLINE EDUCATION

According to the literature, the perceived disadvantages of online education include structural issues; lack of digital skills; academic dishonesty; mental health issues; practical subjects that would need face-to-face interaction; unemployment; decreased quality; and general boredom and fatigue as discussed further in this section.

One of the negative aspects of online education as found in many studies included poor internet connections that affected online teaching strategies (Shindjabuluka *et al.* 2022; Shrestha *et al.* 2022; Tuma *et al.* 2021). Shrestha *et al.* 2022 also determined that power cuts seemed to play a major challenge for online education. Joshi (2021) pointed out that one of the main issues educators were faced with during online classes was that students made excuses about not being able to attend classes that included network issues, lack of connectivity, poor audio and video quality, etc. and it was difficult to determine whether students were honest or just trying to escape from attending classes.

Another challenge or disadvantage that emerged from the literature included the inadequate knowledge, and digital skills of educators on how to use the various platforms (Joshi 2021; Shindjabuluka *et al.* 2022; Shrestha *et al.* 2022). Tuma *et al.* (2021) also expressed challenges with the technology. Educators suggest that training in managing online resources, tools and platforms, training to boost student morale,

training for teachers to assist students psychologically and workshops that embraced online teaching methods would greatly improve the implementation of online education. Amzalag *et al.* (2022) found that there is a high level of academic dishonesty, and a lack of mutual trust between students and lecturers; overall lecturers felt that students were frustrated with online examinations.

Psychological implications about online education also came from the literature . Shrestha *et al.* (2022) reported that the quick shift to online education during the pandemic and the resultant detachment from colleagues and friends resulted in a lack of sharing resulting in difficulties in delivering content which in turn, created anxiety. Joshi (2021) found that work dissatisfaction was reported among educators while conducting online classes, there was also a lack of interest and involvement by most educators and a failure to fill the emotional attachment which is normally prevalent during traditional classroom teaching. Abdelaziz (2022) found that educators felt isolated, there was a lack of self-motivation and self-regulation and a general feeling of isolation. Tuma *et al.* (2021) also reported perceived fatigue of lecturers when conducting online lectures. Educators felt they should be paid more when conducting online lessons and the lack of a decent incentive in terms of salary affected their mental health (Shrestha *et al.* 2021). Duc-Long *et al.* (2021) also found that there was a lack of motivation on the part of lecturer to make the transition to online education and the lecturers found that online education too mechanical leaving them with a feeling of having a lack of control over students.

Another perceived disadvantage or challenge found in the literature was conducting practical classes online. Educators found conducting practical classes online extremely difficult as opposed to the theoretical component which they found much easier (Kulal & Nayak, 2020; Nambiar 2020; Joshi 2021)

Educators feel that online classes will hasten unemployment and also reduce the demand for teachers (Joshi 2021) due to the fact that larger classes can be conducted by a single educator. But Dyatlov *et al.* (2022) mentions that online education resources do not have sufficient capacity to ensure the quality of higher education, there is a sharp decline in the effectiveness of educational activities in the Microsoft Teams and Zoom platforms and there is loss of visual and non-verbal control over students.

The question of the development of a professional and ethical character which is vital in nursing also comes to the fore. Harrison and Laco (2022) point out that importantly the development of the students' character and practical wisdom which is needed later in the nurses' life is severely lacking in online education.

Some disadvantages from the student point of view include, the inability to get help from the teacher; a delay in seeking feedback; untimely or ineffective communication; boring educational approaches; a lack of interpersonal connection; and an inadequately-designed course interface (Abdelaziz 2022). Another study found that perceived fatigue when listening to online lectures was also a challenge for students (Tuma *et al.* 2021).

2.11 SUMMARY

A discussion on the available literature was provided in this chapter. The researcher discussed the broad themes that emerged from the literature which included: online education against the backdrop of COVID-19; ICT infrastructure and online education; training for online education; age and general experience; experience in ICT; the perceived benefits of online education; and the perceived disadvantages/ challenges of online education. The next chapter deals with the research design and methodology and theoretical framework.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this section the researcher describes the rationale for the methodological approach taken, the methodology, conceptualisation of the study in terms of bracketing and reflexivity, population, sample, the research setting, data collection and data analysis. The researcher then continues to describe Guba and Lincoln's (1994) criteria to meet trustworthiness which is a requisite to ensure quality in data collection and data analysis.

3.2 RESEARCH PARADIGM

A paradigm is an overarching philosophical framework which supports the production of scientific knowledge (Brink *et al.*, 2018:20). Paradigms are characterized by philosophical questions, such as, what is the nature of reality? (ontological) and, what is the relationship between the inquirer and those being studied (epistemological) (Polit & Beck 2017:9).

The paradigm for the study was the interpretivist paradigm. Interpretive studies generally attempt to understand phenomena through the meanings that people assign to them. Interpretivism focuses on peoples' subjective experiences, on how people construct the social world by sharing meanings, and how they interact with or relate to each other (Maree 2016:59). From an ontological perspective, interpretivism proposes that there are multiple rather than any single realities of phenomena and that these realities can differ across time and space. Interpretivism focuses on peoples' subjective experiences as well as how people construct their social world. From an epistemological perspective, the interpretivist interacts with those being researched and the findings are created from this interaction (Polit & Beck 2017:10).

Interpretivism was the ideal paradigm for this study, as the researcher delved into the individualized perceptions of the participants regarding online education. The researcher accepts that realities of individuals may differ, and their realities are contextualized, which was in keeping with the interpretivist paradigm.

3.3 METHODOLOGICAL APPROACH/ RATIONALE

The world as we know it is seen through countless different lenses belonging to individuals with various historical backgrounds as well as various preconceived ideas and notions. This may result in differing

perceptions of the same phenomena. A human beings' perception of a phenomenon would result in the way he thinks and therefore words that he speaks leading to his overall behaviour and attitude towards the phenomena.

The researcher was motivated to understand the perceptions of nurse educators towards online education as it is a well-known fact that online education is taking off in a big way across the world in its various modalities. The public nursing college has made its same intentions known regarding the implementation of online education however the perceptions of the actual real-life implementers (nurse educators) at ground level are not known. To gain an understanding of what are the perceptions of nurse educators towards online education, the researcher needed to delve into what was the best approach to follow (which would ultimately lead to the overall design and methodology of the study) by asking various rhetorical questions.

A qualitative research approach is used when not much is known about a phenomenon in its context, the phenomena is poorly understood, and insight is limited (Brink *et al.* 2018). This approach may focus on individuals, how they perceive the world around them and how they give meaning to their experiences (Maree 2016). The qualitative design seeks to explore a depth of information by interacting with participants in their own natural environment while attempting to answer the question "Why?" in unravelling the various meanings and interpretation of a phenomenon (Maree 2016). Polit and Beck (2019) also concur with the above and add that a qualitative design may flexibly adjust to new information, aims at understanding the whole and requires researchers to become intensely involved. It is against this understanding of the qualitative approach of research that the researcher employed a qualitative design to understand the perceptions of nurse educators towards online education.

3.4 RESEARCH DESIGN

The research methodology is the design of a particular study including the set of procedures which are undertaken and the techniques of data gathering and analysis (Polit & Beck 2019; Brink *et al.* 2018). To determine the method and design, the researcher looked at the research question in relation to the different types of designs documented in various literature and chose the most applicable to the study. The driving force behind the methodology chosen was to answer the question “what are the perceptions of nurse education towards online education in the Kwa-Zulu Natal Province?”

According to Brink *et al.* (2018), qualitative research has various designs that may fall under four broad umbrellas. These “umbrellas” include Phenomenology, Ethnography, Grounded Theory and Philosophical Theory. The chosen umbrella for this study is Phenomenology as it examines the “lived experiences” of participants through their own eyes, the importance of the experience as well as the meaning and interpretation given to the phenomenon (Brink *et al.* 2018), which is what was wanted to gauge from this study regarding nurse perceptions towards online education. The specific design chosen for this study is the explorative, descriptive and interpretive qualitative research design. In the following sections the three aspects of this research design which is “exploratory”, “descriptive” and “interpretive” will be examined.

➤ EXPLORATORY

Exploratory research investigates the phenomenon in its holistic nature including how it may be related to other factors as well as its manifestations and underlying processes as opposed to simply observing and describing (Polit & Beck 2019). In this study, the researcher uses exploratory design as there is no current information about nurse educators’ perceptions towards online education in the specified province, the phenomenon is complex and there can be several possible interpretations of the phenomenon (Hassan 2022). In this current study, the researcher, after conducting the literature review found a limited amount of information pertaining to the phenomenon, especially in South Africa, supporting the need for this study. This means that in terms of this exploratory descriptive and interpretive study, after data collection, the researcher compared the findings to the literature (Gray *et al.* 2017).

➤ DESCRIPTIVE

Descriptive studies may be found in both the qualitative and quantitative approach. Gray *et al.* (2017) differentiates between the two to eliminate confusion calling descriptive qualitative approaches, exploratory descriptive qualitative research designs. According to Gray *et al.* (2017), descriptive studies are used for exploration and description of a phenomenon in the real-life situation. Polit and Beck (2019) mention that descriptive qualitative designs answer the question “what is known as human beings?”. Exploratory descriptive qualitative studies aim to describe the experience of everyday activities or “things” in relation to a phenomenon which may include the five senses as well as well as lower order or higher order cognition. An exploratory descriptive design is used where more information about a phenomenon is needed by providing an overview of the phenomenon in its naturally occurring setting (Brink *et al.* 2018). Exploratory descriptive design will be used in this study to identify problems, justify practices, make judgements, and determine what other professionals are doing in the same situation with regards to the perceptions of nurse educators towards online education (Brink *et al.* 2018).

➤ INTERPRETIVE

Bhattacharjee (2019) mentions that interpretive research views reality as multidimensional rather than singular or objective. This reality is shaped by human experience in that particular social context and therefore should be studied within the same context, including gaining the depths of the subjective ideologies of the participants. As in this study, participants were interviewed at their respective campuses and taking into consideration the context in which they reside. The above author also mentions that participants are chosen on theoretical considerations such as whether they fit into the study. In terms of the current study the researcher choose participants based on them being nurse educators who work in the respective institutions. Polit and Beck (2019) add that the goal of the interpretivist would be to enter the world of the participant to discover the practical wisdom understandings and possibilities found there, which is precisely the aim of the researcher’s intention with regards to the nurse educators’ perceptions towards online education.

3.5 RESEARCH SETTING

A research setting (study setting) refers to the specific place or places where the data is collected (Brink *et al.* 2018:47). Polit and Beck (2019) mention that as qualitative researchers are interested in participants' experiences it only seems fitting that the research is conducted in that context which would be a more natural setting. This study setting was the 3 specific Nursing Campuses that form part of the public nursing college. The public nursing college is a natural setting, which is described as an uncontrolled, real-life situation or environment (Brink *et al.* 2018:47). In this study, data was collected at the respective campuses which included participants' offices or other rooms such as classrooms or board rooms prepared specifically for the interview to ensure a conducive environment. The table 3.1. below further further describes the study setting in terms of the number of students registered, number of programmes offered, and the number of nurse educators employed at the respective campuses.

Table 3.1. Description of Study setting

	Total No. of students registered	Programmes offered	No. of nurse educators
Campus 1	70	<ul style="list-style-type: none"> • Diploma in Nursing (General, Community and Psychiatry) & Midwifery (R425) • Diploma in General Nursing R171) 	18
Campus 2	41	<ul style="list-style-type: none"> • Diploma in Nursing (General, Community and Psychiatry) & Midwifery (R425) • Diploma in General Nursing R171) 	14
Campus 3	71	<ul style="list-style-type: none"> • Diploma in Nursing (General, Community and Psychiatry) & Midwifery (R425) • Diploma in General Nursing R171) 	26

3.6 STUDY POPULATION

Gray *et al.* (2017) describes the population as a set of members of the defined group that would share at least one characteristic which represents the focus of the research. To fulfil this characteristic, there should be certain criteria which sets boundaries with regards to the participants chosen. Polit and Beck (2019) concur by adding that the population is defined as the total groups of participants which the researcher is interested in. In this study the population is nurse educators employed by the public nursing college in the Province of KwaZulu-Natal.

3.7 STUDY SAMPLE AND SIZE

A sample can be described as a subset of a larger set of the accessible population that is selected by the researcher for participation in the study (Brink *et al.* 2018). Arriving at a sample in qualitative studies can be very different when compared to quantitative studies where the latter is interested in measuring relationships and attributes with the intention to generalize the findings, Qualitative studies aim to discover meaning and uncover realities as in this current study (Polit & Beck 2017). This means that rather than focusing on the size of the sample, the researcher is more interested in the depth and quality of information collected. However, a too small sample size can lack the depth and richness that the researcher wishes to collect which can reduce the quality of the findings (Gray *et al.* 2017). The optimum number of participants often correlates with achieving data saturation. Data saturation is achieved when no new information is gained from additional sampling (Maree 2016).

The characteristics of a sample in qualitative studies which run parallel to this study includes a small sample studied intensively, participants who are knowledgeable and willing to talk with the researcher, not being prespecified but emergent and selections driven by conceptual requirements (Polit & Beck 2019). In this study, the sample included educators from three (3) out of ten (10) nursing campuses located in the Province of KwaZulu-Natal until such time as data saturation was achieved with an expected sample size of 21 participants. It was not the researcher's intention to achieve any demographic representivity and neither was the intention to generalize the findings.

The inclusion criteria used to select participants included:

- Nurse educators employed by the public nursing college in KZN; and
- Nurse educators willing to partake in the study.

The exclusion criteria use to select participants included:

- Nurse educators not willing to partake in the study, and
- Nurse educators not employed by the public nursing college in KZN.

3.8 SAMPLING METHODS

Convenience sampling as described by Polit and Beck (2019) is selecting the most readily available participants. In general, convenience sampling might not be the ideal as it does not reduce bias and findings cannot be generalized. However, it is not the researcher's intention to control sampling bias, ensure representivity or generalize findings in this study (Brink *et al.* 2018). It is the researcher's intention however to obtain the richest in-depth possible perceptions of the nurse educators towards online education. Therefore, convenience sampling was deemed fit for purposes of this study. The benefits of convenience sampling are that it is cost efficient, accessible, time efficient and allows the researcher to acquire information in unexplored areas (Gray *et al.* 2017), as found in this study. After gaining permission from the gatekeepers from the respective institution, the researcher made appointments with the respective campuses. The prospective participants were made aware of the researcher's presence and those that were willing to take part in the study made themselves available. No participants that were interviewed were used as a part of the study therefore no pilot study was conducted.

3.9 DATA COLLECTION AND METHODS

Brink *et al.* (2018) mention that the researcher would normally collect the data according to a pre-established plan, however data collection in qualitative studies may be more fluid and may evolve as the study progresses (Polit & Beck 2019). Qualitative researchers may go into the field knowing the likely sources of data but also not rule out other possible sources of data. Polit and Beck (2019) note that the primary method

of collecting data in qualitative studies is interviewing participants as in the case with this study.

3.10 DATA COLLECTION METHODS

The interview is a method of data collection in which an interviewer obtains responses from the participant in a face-to-face encounter, through a telephone call or by electronic means. Interviews are frequently used in exploratory and descriptive research, and in case studies (Brink *et al.* 2018:143). Burns, Grove, and Gray (2017:610) explain that interviews allow the researcher to explore greater depth of meaning when compared to other techniques; interpersonal skills can be used to encourage the subjects' cooperation and elicit additional information. Furthermore, a more representative sample can be obtained as the response rate is generally higher and allows the researcher to collect data from participants who may be unable to complete questionnaires for example, due to illness (Burns *et al.* 2017:610). The above advantages will assist the researcher in answering the research questions and gaining insights into the perceptions of the nurse educators with regards to online education that would be otherwise not possible using other methods. For example, if a structured written questionnaire were to be used, this would not be able to gain the depth of information obtainable through the proposed method, as the participant would not be free to verbalize any feelings and lived experiences.

3.11 DATA COLLECTION TOOLS

The data collection instrument used in this study was the semi-structured interview. Semi-structured interviews are used to gain a detailed picture of a participant's beliefs about, or perceptions of a particular topic (Polit & Beck 2019). Semi-structured interviews are used when a specific set of topics need to be covered in the interview as opposed to structured interviews where the interviewer does not have a clear idea of what they want to know (Polit & Beck 2019:509-511). The interviewer prepares a written topic guide or a schedule to ensure the list of topics or questions are covered during the interview (Polit & Beck 2019:511).

The researcher used an interview schedule or topic guide that asked a specific number of open and closed ended questions and the researcher guided but did not dictate the interview (Brink *et al.* 2018:144). The data was recorded on audio tapes before being transcribed verbatim (Brink *et al.* 2018:145). The advantage of the semi-structured interview is that researchers obtain as much information as possible, as it is more focused and gives the participant the freedom to provide as many illustrations and explanations as they wish (Polit & Beck 2019:510). Also, the researcher can seek clarification on concepts as and when needed during the interview. This advantage ensures that the researcher would gain an understanding of the perceptions of nurse educators with regards to online education. Individual semi-structured interviews were conducted with 21 participants from the respective campuses. Each interview was allowed a limit of one hour but generally lasted between ten and forty minutes. Participants were given information regarding the study using an information sheet and each participant was required to sign an informed consent form. The interview was audio recorded using an audio voice recorder and later transcribed verbatim for purposes of data analysis.

3.11.1 Individual face-face Interviews

For the purposes of gaining insight into the perceptions of nurse educators towards online education, the researcher used individual face-to-face interviews. An interview is a two-way process in which the interviewer asks the participant questions with the aim of gaining insight into that participant's ideas, beliefs, opinions, perceptions towards the phenomenon (Maree 2016). Interviews are commonly used in explorative and descriptive research and are the most direct method of obtaining data from participants (Brink *et al.* 2018). The researcher conducted Twenty one (21) interviews across the three campuses. The researcher found that the individual face-to-face interview was suitable for the study as elaborated by Adams (2015) for the following reasons:

- The researcher gained independent, individual perceptions of each participant.
- Participants might not have felt as candid and free to speak in a focus group as they would in an individual interview
- The researcher was exploring relatively uncharted territory and needed to uncover leads with the intention to pursue these leads.

3.11.2 Semi-Structured Interviews

In a semi-structured interview, the researcher asks specific predetermined questions while probing into the responses of the participant (Brink *et al.* 2018). The above authors add that the researcher may use both open-ended and closed-ended questions and that closed ended questions must not be underestimated for gathering information especially when followed by open-ended questions. The researcher needed to be attentive to the participant's responses to identify new emerging themes with the aim of exploring and probing these. The interviewer also needed to keep the conversation flowing by using various non-verbal and verbal techniques. The interview guide was drawn up using themes from other similar studies. The interview guide was however not cast in stone as it evolved as the study progressed as well as adapting to the individual participants' frame of answering.

It is imperative that qualitative researchers plan how data the data is to be captured and stored. Interview data can be captured by taking detailed notes, but this can be cumbersome as it takes away the attention of the interviewer from the interview. The interviewer may also introduce bias due to the incompleteness, lack of precision, memory, and the personal views of the interviewer (Polit & Beck 2019).

In this study the interviewer used an audio recorder to record the interviews which was later given to a professional transcriber to transcribe. The participants were made aware of the interview being recorded and given the option of refusing to have the interview audio recorded prior to the interview. None of the participants objected.

Distractions from the environment are inevitable when recording interviews (Polit & Beck 2019). The researcher found unavoidable sound that may have reduced the quality of the recordings such as noise from outside traffic, construction and hooting of taxis. The researcher made every possible attempt to limit these distractions by closing windows, changing the venue and in one case asking the participant to speak louder than usual and making sure the recording device was as close as possible to the participant.

The researcher did find using the audio recorder of the cell phone much easier and feasible to use as the recording could immediately be uploaded onto One Drive and the quality was no different to that of the normal audio recording device. This made the recordings always available to the researcher and prevented the data from being

lost, stolen or mislaid. It is also worthy to make mention that using an audio recorder freed up the interviewer to pay close attention to the participants. The interviewer was then able to concentrate on asking follow up questions, maintaining eye contact and using non-verbal and verbal cues to probe the participant.

3.12 DRAWBACKS ENCOUNTERED IN THE INDIVIDUAL FACE TO FACE SEMI-STRUCTURED INTERVIEWS

3.12.1 Time Consuming

The individual face-to-face semi-structured interviews were relatively time-consuming and were conducted over a span of ten days. Besides the time taken allocated for the interview, other issues would inevitably arise such as the unavailability of the participant at that moment as a result of the participant being in a class or attending a meeting, which would mean that the researcher had to wait for the participant or come back the next day. Also, a lot of time was taken to prepare for the interviews as well as transcribing and analysing the transcribed interviews.

3.12.2 Cost

The costs incurred in the process of data collection include travelling costs, purchasing of stationary as well as an audio recorder. There were times when the educators were not available at the previously agreed upon time and the researcher had to go back to the campus on another day resulting in additional travelling costs.

3.12.3 Skill of the Interviewer

Adams (2015) mention that the interviewer needs to be smart, sensitive, poised, knowledgeable as well as trained in the interview process. In this study, the researcher who was also the interviewer, did not have any formal training in interviewing as a researcher but relied on his skills as a professional nurse as well as an educator. The researcher also studied literature on interviewing prior to commencing data collection. The research supervisor also assisted in this regard after listening to the first interview and making recommendations.

3.12.4 Logistical Issues

In the three campuses that the interviewer visited, all the campuses' gatekeepers had decided on a suitable venue for the interviews to be conducted (with all good

intentions) such as the board room. With this type of set-up, it was found that participants were less willing to participate. When approaching the participants in their offices, they advised that they were busy at that time and could not leave the office. When the researcher mentioned that the interview would not “be long” the participants agreed for the interview to be conducted in their offices. The researcher then went on to approach other prospective participants in their offices in a more informal and spontaneous fashion and found that participants were then, more willing to partake in the study as opposed to them coming to a set venue. Interruptions were also a problem. It was found that irrespective of the location of the interview minor interruptions still occurred, although these interruptions were mostly matters of urgency.

3.12.5 Bias

Bias can produce an error or a distortion which can affect the quality of evidence in qualitative and quantitative studies. Prior to conducting the study, the researcher should attempt to eliminate any sort of bias whether intentional or unintentional (Polit & Beck 2019; Brink *et al.* 2018). As the data collection process is fluid, the researcher should be aware of bias that may be emergent employing strategies to reduce or eliminate them.

Participants’ lack of openness and transparency - It was found in this study that participants would try to represent themselves in the best way possible (either consciously or sub consciously) which could result in bias (Brink *et al.* 2018). To overcome this, the researcher made participants aware prior to the interview that all information given would be kept confidential and used purely for research purposes. The purpose, the aim and the contributions of the study was also emphasised to the participant to eliminate any misrepresentation of data.

Researcher subjectivity - As an employee of the institution, the researcher is bound to have their own beliefs and opinions of the study. The researcher used “Bracketing” as a method to reduce any bias that may be caused by his subjectivity towards the phenomenon. Collecting the data had an emergent characteristic, therefore the researcher also had to use “reflexivity” in being aware of his responses to the participants as new themes emerged.

Bracketing - It is normal, as human beings, to have beliefs and opinions about phenomenon. If the phenomenon is a topic of interest, then the beliefs and opinions are likely to be strong. If the topic of interest is a research study, then is it obvious that the researcher would hold various beliefs and opinions regarding the study. Bracketing is a process that the researcher uses to put aside any preconceived ideas about the topic and not let these ideas effect the study in any way (Brink *et al.* 2018). Polit and Beck (2019) add that while bracketing can never be totally achieved the researcher should strive as much as possible to prevent their presuppositions emerging so that they may obtain a true and accurate reflection of the phenomenon under study.

With this study, it was imperative that the researcher engaged with the process of bracketing as the researcher is a nurse educator at the one of the respective institutions and having preconceived ideas about the subject of the study was unavoidable. Before the process of data collection began, the researcher endeavoured to "put aside" all these presuppositions to prevent the study being contaminated and to collect the purest data possible.

Reflexivity - The researchers own biases and feelings of the phenomenon can contribute to how they respond to the data being collected and in the analysis of the data. Therefore, the researcher needs to be aware of their own biases and experiences and how that may influence their responses or interpretation of the data (Gray *et al.* 2017). In terms of this study, the researcher continuously self-interrogated to limit subjectivity so that a true reflection of the phenomenon could be grasped.

3.12.6 Generalizability of the study

Being able to generalise from this study was not an aim or a purpose of this study. As discussed in the previous sections, the researcher did not aim to ensure any sort of representativity of the participants. This can be a drawback of the study as it would mean that the study may not be applicable to other institutions. No demographic data was taken in this study to generalise to any population group. In this regard, non-probability sampling was carried out, namely, convenience sampling which also eliminates this study's generalisability. The researcher acknowledges this disadvantage of the study and reiterates that the aim of the study was to obtain a rich, in-depth, as well as lateral perception, of the nurse educator towards online education and not to generalise the findings.

3.13 DATA ANALYSIS

The purpose of data analysis is to organise, provide structure and elicit meaning from data (Polit & Beck 2019). In terms of qualitative studies, the data analysis is carried out concurrently with the data collection where the researcher immediately identifies the emerging themes. Data analysis in qualitative studies is not to be underestimated as the researcher needs to emerge themselves in the data in order to make meaning and provide a true reflection of the data collected (Polit & Beck 2019).

The researcher used Collaizi's (1978) seven (7) step method integrated with a Computer Assisted Qualitative Data Analysis Software (CAQDAS) to manage, structure, and analyse the data. The CAQDAS which was used was NVivo. The programme assisted in coding, arranging the codes into themes, examining the relationships between themes as well providing a hierarchy and structure to the analysis process.

Using Collaizi's procedural steps as a guide:

- The researcher familiarised himself with the data by reading the participants transcripts several times with an attempt to submerge himself in the data.
- The transcribed interviews were then uploaded onto the NVivo programme which assisted in sorting and arranging the different codes into themes and sub-themes which the researcher identified.
- The researcher then used these themes, sub-themes and codes to write a rich and conclusive description of the perceptions of nurse educators towards online education.
- The researcher then condensed the information into a report to include only those aspects that were relevant to the phenomena.
- The last step proposed by Collaizi where the researcher returns to the participants to determine whether the study accurately captured their perceptions of the phenomenon in this study.

3.13.1 Quality in Data Analysis

The concepts of validity and reliability used in quantitative studies focuses on whether the processes used to uncover the data and arrive at conclusions reflect the reality or

truth of the phenomena (Brink *et al.* 2018; Polit & Beck 2019). This is not exclusive to quantitative studies as these concepts are used synonymously with the concept of “trustworthiness” in qualitative studies.

Maree (2016) states that trustworthiness in qualitative data is of utmost importance and remains the “acid test” of the data collection, analysis, findings and conclusion process. Whereas rigor in quantitative research is described with terms such as accuracy, consistency and attention to detail (Gray *et al.* 2017), rigour in qualitative research refers to the openness, relevance, methodological congruence and thoroughness in data collection and analysis (Brink *et al.* 2018).

Guba and Lincoln (1994) as cited in Polit and Beck (2019) and Brink *et al.* (2018) propose a framework to ensure trustworthiness, and ultimately, quality, in qualitative studies is met. These include the concepts of credibility, dependability, confirmability, transferability, and authenticity which are discussed further, along with the strategies employed by the researcher to ensure these criteria were met.

3.13.1.1 Credibility

Credibility refers to the confidence in the truth of the data and its interpretations (Polit & Beck 2017). The qualitative researcher must strive to ensure that the reader will believe that the study is a true reflection of the phenomena. To ensure credibility, the researcher ensured prolonged engagement in the research setting with the participants until data saturation was reached. This engagement lasted for 10 days resulting in 21 interviews. During the interviews, the researcher allocated enough time for the participants to express themselves about the phenomena. The researcher clarified participants’ responses and sometimes asked the same question twice to ensure a true reflection of the participants’ perceptions was obtained. Furthermore, the researcher received suggestions and feedback from the research supervisor during the interview phase around the interview process. The researcher ensured he kept notes on how he could improve his interview technique after listening to each interview. With regards to transcription, a professional transcriber was utilised which further ensured objectivity when transcribing which was later confirmed by the supervisor. The researcher made available the transcriptions to the research supervisor to correlate with the findings.

3.13.1.2 Dependability

Dependability refers to the stability of data over time and conditions. Dependability asks, whether the finding of an inquiry can be repeated if it were replicated with the same participants in the same context (Polit & Beck 2019). To ensure that this criterion was met, the researcher ensured that semi-structured interviews were carried out using open ended questions until data saturation was reached. The study was conducted in the participants' setting and in the context of the public nursing college. Again, obtaining a thick, vivid, exhaustive description of the phenomena also meant that the criterion of dependability was met. The researcher remained truthful throughout and no errors were made. Furthermore, the researcher made sure that all the processes of data collection and analysis are documented in the report as specifically as possible so that the methodology can be replicated. Lastly, the researcher made means of an inquiry audit, the research supervisor being the auditor, to ensure the process was conducted in such a way that the findings correlate, and the study can be replicated.

3.13.1.3 Confirmability

According to (Polit & Beck 2019), confirmability refers to the objectivity of the data in qualitative research. Confirmability ensures that the researcher accurately represent the data that participants provide and does not let their own biases and perspectives influence the data (Polit & Beck 2019). This criterion alludes to the fact that the data collected should be representative of the participants and not the researcher's own bias, opinions, and perceptions. To ensure that confirmability was met, the researcher practiced the strategy of bracketing by putting all his preconceived, notions, beliefs, opinions, and perceptions aside to not let it affect the findings of the study. The researcher practiced this process at the onset as well as throughout data collection and data analysis. Furthermore, the researcher also had to be aware of how his own feelings, bias, opinions, and perceptions would affect the way he responded to the participants and also when analysing the data. This strategy is call reflexivity (Gray *et al.* 2017). The researcher also used prolonged engagement, inquiry audit, clarification of participants responses, using a professional transcriber, and audio recording instead of writing to ensure objectivity and ultimately confirmability.

3.13.1.4 Transferability

Polit and Beck (2019) define transferability as the extent to which findings can be transferred to or have applicability in other settings or groups. The researchers' responsibility was to ensure that thick descriptive data was provided so that the consumer can assess whether the data can be applicable to other settings (Polit & Beck 2019). Transferability is the potential of the findings to be applicable to other participants in other settings. As discussed previously it is not the objective of qualitative research to generalise findings, and neither is it the objective of this study. In qualitative research, the researcher ensures that interviews are carried out until data saturation was met. Again, a thick and vivid description of the phenomena was obtained which enhanced its transferability. Polit and Beck (2019) mentions that searching for confirming evidence can be used as a method to enhance transferability. The researcher sought external evidence from other studies as a means of supporting the current study which in turn supported the transferability of the current study.

3.13.1.5 Authenticity

Authenticity can be defined as the degree to which the researcher captures the worldview of the participants by using thick, context rich descriptions (Brink *et al.* 2018). For this criterion to be met the researcher needs to portray the experiences, feelings opinions and beliefs of the participants in their context. This indicates that the study should have a sensitive feel to it so that the holistic version of the participants and their perception of the phenomena can be depicted (Polit & Beck 2019; Brink *et al.* 2018). The researcher aimed to achieve this by using the participants' own words whenever appropriate and with reference to the research setting.

3.14 ETHICAL CONSIDERATIONS

There are fundamental ethical principles that guide the researcher in ensuring that the human rights of participants are protected. The ethical principles that were relevant and explicated further in this section include the principle of autonomy, the principle of beneficence, the principle non-maleficence and the principle of justice (Brink *et al.* 2018). Approval to conduct the study was sought and from the UNISA College Research Ethics Committee (CREC); and the Kwa-Zulu Natal Department of Health.

Furthermore, permission was sought from the Principal of the Kwa-Zulu Natal College of Nursing as well as the respective Principals/ Head of the three campuses.

3.14.1 Autonomy

This principle ensures that all participants and stakeholders are treated as human beings who are capable and have the freedom of making their own choices or decisions. The principle also suggests that participants should be given enough information on the topic to make an informed decision (Polit & Beck, 2019). The following sections elaborate on how this principle was applied in the study.

3.14.1.1 The Participant

All participants were given information about the study and had the opportunity to choose whether to partake or not. Participants were free to opt out of the study at any given time without risk of penalty or prejudice. Participants reserved the right to seek clarification that the researcher responded to truthfully. Participants were given all the information necessary including the purpose of the study and what was expected from them in order to sign an informed consent. The participants knew the estimated total number of participants as it was useful to make an informed choice whether to participate or not.

3.14.1.2 The Institution

Gatekeepers (Principals) of the public nursing college were given information about the study before permission was requested. The gatekeeper could choose to decline permission to the researcher and could also stop the study progressing at the institution at any point if necessary. Permission was sought from the Principal of the Kwa-Zulu Natal College of Nursing as well as the respective Principals of the campuses.

3.14.1.3 Scientific Integrity of the Research

The researcher himself will have a certain amount of autonomy over the study that will be guided by the applicable ethics committees (University of South Africa Research Ethics Committee). It is the researcher's responsibility to use this autonomy responsibly over the course of the study and not jeopardise scientific rigour.

3.14.2 Non-Maleficence

This principle ensures the participant and other stakeholders are protected from discomfort and harm which may be in the form of physical, psychological, emotional economic, social or legal harm (Brink *et al.* 2018). The following sections elaborate on how this principle was applied in this study.

3.14.2.1 The Participant

The researcher ensured that no harm or discomfort came to the participants, either psychological or physical. One method of doing this was to ensure the interviews were conducted in a private and comfortable space. The researcher was aware that some participants that might feel anxiety, fear and tension during the course of the interview and that this would have to be managed appropriately in such circumstances. The researcher ensured that written informed consent was obtained before commencing the interviews with participants. The participants were also made aware of the estimated interview period that lasted approximately one hour. The participants were made aware that they had the right to insist that their names were not recorded anywhere to maintain confidentiality. The researcher ensured that only relevant people (members directly involved with the study) were allowed access to the participants' data. Should a report of the study be submitted for publication, the researcher will ensure that individual participants are not easily identifiable. The researcher does not plan to keep any hard copies of data, but should there be hard copies the researcher would keep those copies in a locked cupboard at the researcher's residence for a period of five years after which it will be destroyed. Electronic data will be stored on a password-protected computer.

3.14.2.2 The Institution

The researcher ensured that there was minimum disruption to the work environment by planning the interviews in advance at a convenient time for both the participant and the institution. The researcher ensured that no harm was done to the resources of the institution including environmental, human, and financial. Permission was requested from the institution before commencement of the study.

3.14.3 Justice

This principle ensures that participants and stakeholders are treated fairly and should receive what is owed to them (Polit & Beck 2019; Brink *et al.* 2018). The following sections elaborate on how this principle was adhered to.

3.14.3.1 The Participant

The researcher adhered to the protocol and information supplied to the participant. No new interventions were implemented but purely data collection. The participants were interviewed by the researcher and were not subjected to harm. All data collection techniques, for example, audio recording were made known to the participant. Participants were given contact numbers should they have any complaints. Informed consent were obtained from the participant. Only the intended study that gained approval was conducted and no other variables included

3.14.3.2 The Institution

The researcher ensured that all protocols were observed as stipulated when permission was requested. The researcher ensured that fairness was maintained when recruiting participants for the study. The researcher ensured that there was no exploitation of participants based on race, religion, gender, age, class, or sexual orientation. The researcher ensured that only the proposed study was conducted.

3.14.3.3 Scientific Integrity of the Research

The researcher was fair in not letting his own biases and perceptions affect the study. Bracketing enhanced scientific rigour and ensured fairness in the study. The researcher obtained ethical review and clearance from the appropriate departments before commencement of the study.

3.14.4 Benevolence/ Beneficence

This principle ensures that researcher does good, protects the participants from harm and discomfort and bring about the greatest possible balance of beneficence in comparison to harm (Polit & Beck 2019). The purpose of research should be to bring about benevolence. The researcher aimed to adhere to this principle as elaborated in the following sections.

13.4.4.1 Participants

Participants received direct benefit by participating in this study as they became aware of the phenomenon at hand as well as the research process. The self-esteem of participants improved, as they considered that their involvement in the study would contribute to the researcher's success as well as being altruistic. Participants became aware of their own readiness and perceptions about online education. The researcher ensured that the findings would be made known to the participants. The benefits of the study for the participants were made known to the participants. Participants were made aware that there was no financial reward or otherwise as well as the fact that there was be no financial costs incurred by any of the participants. Information was given to the participants as to how the findings of the research would be shared with them after completion of the study. The findings will also be shared with the institutions.

13.4.5 COVID-19 AND NATIONAL LOCKDOWN MEASURES.

Data was collected between the 10th and 28th of October 2022. During this period there were no Covid restrictions. However, the researcher ensured that there was social distancing of 2m during the interview and participants were advised to wear a mask during the interviews, but some felt more comfortable not doing so. The researcher also wore a mask.

13.5 SUMMARY

In this chapter the researcher described the rationale for the methodological approach taken, the methodology, how bracketing and reflexivity was used, population, sample, the research setting, data collection and data analysis. The researcher then went on to describe Guba and Lincoln's (1994) criteria to meet trustworthiness which is a requisite to ensure quality in data collection and data analysis. In the next chapter Data Analysis of the study will be discussed.

CHAPTER 4: PRESENTATION, DESCRIPTION AND ANALYSIS OF RESEARCH FINDINGS

4.1. INTRODUCTION

The previous chapter dealt with the methodology used to conduct the study. This chapter details and discusses the results of the study. Quotes from the individual interviews are provided under the relevant theme and sub-themes to further describe the perceptions of the nurse educators. Supporting information obtained from applicable literature will also be compared to the findings under the relevant themes and sub-themes.

4.2. PERCEPTIONS

Perception is defined as an idea, belief, or an image you might have as a result of how you see or understand something (<https://www.oxfordlearnersdictionaries.com>). The APA Dictionary of Psychology describes “Perception” as a result of becoming aware of an event by recognizing, observing and discriminating which enables an individual to interpret stimuli into meaningful knowledge and use it in a co-ordinated manner. For the purposes of this study, we refer to the perceptions of nurse educators towards online education. It is believed that these nurse educators are the relevant people who will be the implementers of online education in the nursing institution and their perception of online education is vital in the effective implementation of the phenomena.

4.3. OBJECTIVES

The objectives of this chapter are to:

- Analyse raw data and reduce it to codes, thereafter, reconstruct themes and sub-themes; and
- Portray the perceptions of nurse educators through quotations and compare findings to other relevant literature.

4.4. DEMARCATION OF PARTICIPANTS

The Table 4.1. Below indicates campuses, gender, age as well as codes used to identify nurse educators during the data collection process. The three campuses form part of the public nursing college from a total of ten (10) campuses. The three campuses were chosen because of accessibility for the researcher. Even though the gender and age of this study participants had no bearing on the results, it is worthy to report that all the nurse educators happened to be female because of convenience sampling and the campuses having either one or no male nurse educators. The nurse educators ranged from 42 to 63 years of age.

Table 4.1: Description of the sample

Campuses	Gender	Age	Participants codes
Campus 1 (10)	Female	47	P1
	Female	57	P2
	Female	50	P3
	Female	56	P4
	Female	47	P5
	Female	60	P6
	Female	51	P7
	Female	45	P8
	Female	50	P9
	Female	63	P10
Campus 2 (4)	Female	58	P11
	Female	55	P12
	Female	60	P13

	Female	55	P14
Campus 3 (7)	Female	42	P15
	Female	46	P16
	Female	55	P17
	Female	52	P18
	Female	62	P19
	Female	52	P20
	Female	50	P21

4.5. THEMES AND SUB-THEMES

The 21 audio recordings were transcribed verbatim and uploaded onto a CAQDAS, namely NVivo. Each transcription was read to obtain a general feel of the perception of nurse educators towards the phenomena. Each transcription was then read again, more in detail, identifying codes. Related codes were then grouped together using the CAQDAS, which allows the researcher to group, ungroup, regroup and develop new groups of codes until clear themes and sub-themes, emerged. The codes, themes and sub-themes were then verified by the research supervisor which enhanced the validity of the findings.

The codes were eventually grouped into four (4) themes and seventeen (17) sub-themes that emerged from the data. Following in this chapter, each theme and subtheme is discussed using excerpts from nurse educators' responses. Prior information from relevant literature is also be used to compare the findings. The following table 4.2 illustrates the themes, sub-themes and codes that emerged from the findings.

Table 4.2: Themes, sub-themes, and codes

Themes	Sub-themes	Codes
1. Perceived advantages of online education	1.1. Flexible method of teaching and learning	<ul style="list-style-type: none"> • time • place • presence • students able to attend lectures while sick. • relaxed mood • one-on-one
	1.2. Cost effective and time efficient	<ul style="list-style-type: none"> • Save time. • Saves money. • Saves time in conducting assessments
	1.4. Improved feedback to student	<ul style="list-style-type: none"> • Results given more quickly. • Feedback not restricted to office hours
	1.5. Encourages innovative way of teaching and learning	<ul style="list-style-type: none"> • encourages innovation in teaching • learning of new strategies
2. Perceived disadvantages of online education	2.1. Promote dishonesty during assessment	<ul style="list-style-type: none"> • Increases dishonesty. • Mechanisms not in place to limit dishonesty. • Dishonesty during online lessons
	2.2. Limit Interpersonal relationship among students and lecturers	<ul style="list-style-type: none"> • Unable to gauge non-verbal responses.

		<ul style="list-style-type: none"> • Maintaining attention of students.
	2.3. Problems with the Internet connection and other technical aspects	<ul style="list-style-type: none"> • Load shedding • Poor internet connection • Lack of computers • Use of own devices • Limited data • Buying own data for work
	2.4. Working beyond official working hours	<ul style="list-style-type: none"> • Intruding on personal time • Working from home not comfortable
	2.5. Not suitable for clinical or practical teaching and learning	<ul style="list-style-type: none"> • Not suitable for the clinical component • Maybe suitable for clinical component • Use of videos
3. Perceived barriers for effective implementation of online education	3.1. Lack of infrastructure	<ul style="list-style-type: none"> • Limited availability of devices (tablets) • Unhappiness using their own devices • Some nurse educators don't have computers • Limited data • Purchasing own data
	3.2. Inadequate technology skills and support	<ul style="list-style-type: none"> • Poor self-efficacy • Inadequate training • No time to attend training provided

		<ul style="list-style-type: none"> • No feedback from those who attended the training
	3.3. Attitudes of students and lecturers	<ul style="list-style-type: none"> • Apprehensive attitude • Preference for traditional methods • Lack or prioritization to attend training provided
4. Perceived measure to promote the use of online education	4.1. Need for support by the institution	<ul style="list-style-type: none"> • Need for more training • Dedicated person for ICT issues
	4.2. Need for incentive in the form of reimbursements for teaching online	<ul style="list-style-type: none"> • Reimbursements for teaching from home • Working outside of working hours
	4.3. Proper dishonesty detectors during online assessment	<ul style="list-style-type: none"> • Online assessments tools

4.5.1. Theme 1: Perceived Advantages of Online Education

In this study, it was apparent from the interviews that nurse educators perceive that the advantages of online education are varied and vast. Of the various advantages that emerged from the data, five sub-themes which will be discussed below include online education being a flexible method of teaching and learning, cost effectiveness and time efficiency, improved feedback to students, encouraging innovative ways of teaching and learning.

Sub-theme 1: Flexible method of teaching and learning

Nurse educators recognise the flexibility of online education in terms of time, place, and presence. Nurse educators believed that they could teach even when not physically around at the campus as indicated by the following excerpt.

The perception was I only teach when I'm in class, I only teach when I'm in the premises. So, now, because there is online education, it's actually possible to teach even when you are not around. (P21; age 50)

Another participant added:

The flexibility, it helps in the sense that, if I'm unable to come to campus, then I'll be able also to set up an online for whatever lesson that I was supposed to do as face to face in campus. (P14; age 55)

This sub-theme suggests that online education would allow nurse educators to attend to other activities which they may deem important, opening a whole new dimension to the roles and responsibilities they could attend to in terms of their presence.

Not being able to attend the traditional classroom because of illness may be inevitable. The nurse educators were of the opinion that by using online modalities, students still had the option of attending class online to ensure they would not miss out on a lesson as indicated by the following excerpt.

And even if a student is sick and may have just got the flu and...they can take their medication and still listen to the lecture. They can. So, it gives that student that opportunity as well to be present, they're logging on and they can be present.. (P7; age 51)

Flexibility not only includes place but also time as indicated in the next excerpt. The nurse educators believe that they, as well as the student, would not necessarily be restricted to time as stipulated by the institution and that they would have an unrestricted accessibility to the student and vice versa. This advantage obviously opens another dimension of education related to time which goes beyond the classroom, in which the possibilities are enormous compared to the traditional classroom setting.

Online education helps with a flexi-time for both lecturer and a student where both of them they've got no pressure but now they are in a relaxed mood and the student is able to open up at that time. (P14; age 55)

From the above excerpt it is important to note that the nurse educators believe that the flexibility also brings about a certain relaxed mood. It may be noted that when one is in a relaxed mood, teaching and learning is further enhanced. Nurse educators also

noted that students have the option of having one-on-one discussions online which may allow topics not well understood in the traditional classroom setting to be discussed later on as evidenced by the following excerpt.

So, the one-on-one it helps in that the student who does also self-introspection, who is able to say, ma'am, can we do an online? Can I contact you after hours? Can we do at this particular time? Can I set an appointment so we do one, two, three, and four? And at that times [sic], even if you are not in the campus, then you are able to set the time and the student will discuss whatever topic. (P15; age 42)

Nurse educators mentioned that flexibility allowed them to teach at any time or place including their free time or the students' free time as indicated by the following excerpts.

I can do it at my free time and the students are freely available at any time. They can get me on my cell phone or on e-mail. So, at any time, I'm available. (P11; age 58)

Another participant added:

I think you can avail yourself to actually teach wherever you are, not necessarily that you have to be at the institution, in a classroom. So, I think it offers more flexibility from that perspective. (P9; age 50)

Meri-Yilan and Koruyan (2021) conducted a qualitative study using a sample of 15 lecturers from Saudi Arabia, Oman and Turkey and also concur with these findings, adding that online education promotes flexibility in that large classes can be taught, interaction and engagement is increased, educators can teach from the comfort of their own home and the sharing of information is made easier. In line with this study, in India, Joshi (2021) also found that educators felt online education was more flexible, convenient, and easily accessible and could be scheduled as convenient.

Sub theme 2: Cost effective and time efficient

Information, Communication and Technology (ICT) not only increases economic growth in both high income and low-income countries, but poor countries also tend to gain more from the ICT revolution (Appiah-Otoo & Song 2021). Nurse educators were of the opinion that an advantage of online education is that it saves time and money as well as other resources as indicated by the following excerpt.

I think that's the way to go in the future because we're very technologically advanced and it also saves a lot of time and money and resources using this virtual platform. So, I'm for it. (P7; age 51)

More specifically, the nurse educators believed that online education saves them time when conducting assessments as well as marking these assessments as indicated by the following excerpts.

You can do assessments in real time, and it's also...it's time-effective and also, dependent on how you do or conduct these online assessments in real time, can you imagine how quickly you can mark those assessments? So, that too are all of the benefits of using online teaching and learning. So, really, for me, it's highly beneficial. (P12; age 55)

Another participant added:

So, if I have to do, for example, the online evaluation, I just set the tool that I'm going to be using and then it can mark on its own, so it frees me some time to do other things. (P21; age 50)

Bagarukayo and Kalema (2015) and Padayachee (2017) who conducted studies in South Africa, support the fact that online modalities save educators time when using online marking as well as capturing and disseminating results.

Many researchers agree with this study that online education has the advantage of being cost effective as well as time efficient including Josep (2020). Shindjabuluka *et al.* (2022) conducted a qualitative study with 18 nurse educators in Namibia also concurring with this study claiming that teachers and students can save money as they do not have to travel to a specific location for purposes of teaching and learning which would not be possible without online education. Sun and Chen (2016) using a qualitative content analysis approach reviewed 47 published studies worldwide also agree that time and geographical aspects are vital benefits of online education with regards to cost effectiveness.

Sub-theme 3: Improved Feedback to Students

The nurse educators consider that online modalities improve feedback given to students as marks can be given as quickly as possible instead of waiting for the student to be back on campus from the clinical area or from leave. Furthermore, nurse

educators believed they are not restricted to giving feedback during office hours. The following excerpt backs this perception:

when you have looked at those assignments, you can quickly give them marks and you can communicate on your WhatsApp to the students, and you can have the marks, have the comments, etcetera, as quick as possible whenever the student needs it, not only from seven to four during office hours. So, I think that's a huge advantage. (P9; age 50)

Another participant added:

It would benefit me because I would be able to send the assignments while they are in the clinical area. I don't have to wait and see them when they are coming for their block. And I also mark it and give them the feedback, even the corrections, and also to give them the material that will be required for them in the next block rather than waiting for them to give them when they are here in front of me, and they can start reading what is gonna be learnt in the next block. (P4, age 56)

The findings of this study are in line with those of Padayachee (2017) who reported that students can be easily tracked in the online environment and their progress can be monitored. Bagarukayo and Kalema (2015) also found that immediate feedback to learners was useful to both the learner and the educator. Both these studies were conducted in South African Higher Education Institutions.

Sub-theme 4: Encourages Innovative ways of teaching and learning

The nurse educators adjudge that online education encourages innovation and allows them to be creative and create exciting teaching and learning experiences as indicated by the following excerpts.

So, it makes teaching and learning exciting and continuous" (P14; age 55)

Another participant added:

it just broadens your mind as an educator. You can't be sitting there doing what was done to you when you were a student. You find new ways. And also, it allows you as an educator to explore a lot of things. (P21; age 50)

The nurse educators also think that they can learn new strategies from the internet which may be created by other people as evidenced by the following.

With online learning, I think I also enjoy it because you're also able to explore a lot of options with regard to your teaching strategies, and you can take a lot from the internet with regard to your teachings as well (P6; age 60)

Mbanga and Mtembu (2020) conducted a study on the perceptions of educators towards online education that also supports this study adding that online education modalities offer a wide range of tools and solutions that enhance creativity, empower, and equip both the educators and students. The researchers also found that participants viewed online modalities as making teaching and learning more meaningful and more fun. This study was conducted at a South African Higher Education Institution

4.5.2. Theme 2: Perceived Disadvantages of Online education

Although there are many advantages to online education, nurse educators are of the opinion that there are also disadvantages as well, as illustrated by the following sub-themes. These include promoting the potential for academic dishonesty, limited interpersonal relationships among students and lecturers, problems with internet connection and other technical aspects, working beyond official working hours and online education not being suitable for the practical components of nursing.

Sub-theme 1: Promotes the potential for academic dishonesty

Academic dishonesty can be described as unethical actions in an academic environment where students are found to attempt to gain an unfair advantage for themselves over their peers (Amzalag, *et al.* 2022). The possibilities in gaining an unfair academic advantage during online assessments are vast due to the technology that is at the disposal of the students (Sarwar, Idris & Ali, 2018).

Nurse educators in this study perceive that online modalities can increase the risk of dishonesty during assessments, and they were unsure whether or not the mechanisms in place would be sufficient to limit the dishonesty, as is illustrated below.

Also, the biggest disadvantage is at the moment we have not come to a point where we trust our students. So, I saw during COVID-19 when they were writing tests, others were getting very good marks, online test, they were getting very good marks that you can see this person worked...used open-

book test. So, those trust issues are putting us at a disadvantage at the moment. (P21; age 50)

Another participant added:

The honesty on online assessments, what I've heard with other institutions, they said they've got an invigilator, they've got an online invigilator when they are doing those assessments. (P14; age 50)

Besides the dishonesty during online assessments, the nurse educators also felt that students could be dishonest even during online lessons. They felt that some students logged on just to appear as if they were in the lesson but were actually not, as in the following excerpt.

As I've said, with online you can have a student logging on but being absent. (P1; age 47)

Nurse educators also felt that even in normal online lessons or discussions they could be dishonest. They felt that students could be responding online while using their devices to seek out information instead of using their own knowledge.

That's another thing you have to think of. The disadvantage is that you never know whether they...what they're doing is true. They could be cheating, you may never because you're obviously not face to face with them when they are doing the online. 'Because obviously they could be on their tablet and they could be Googling on their cell phone to get the correct answer. So, that's another one (P15; age 42)

A quantitative study conducted in Israel by Amzalag *et al.* (2022) with 81 students and 50 lecturers also found that there was a high level of dishonesty when it came to online assessments and there was lack of mutual trust between educators and students.

Sub-theme 2: Interpersonal relationships among students and lecturers

Nurse educators feel that they were not able to gauge students' non-verbal responses which could indicate they were not paying attention or just having a problem understanding. The following excerpts substantiates this.

They may not be engaging per se, whereas when it's face to face you can see that this student is daydreaming or if that student has a problem, they need to attend to something. So, you can negotiate conditions like that where you ask the student to...or you engage the student because you see now they're

becoming bored, let me change my strategy. You don't have that advantage online. (P1; age 47)

Another participant added.

For me, I didn't like it because sometimes if you see the student in front of you, you can even see the facial expression, if she understands, but now if it's online, it's so difficult to identify that, to pick up that the student is not understanding and student is attentive enough, or sometimes you'll find that they are busy doing their things there, not being attentive. (P18; age 52)

Junus *et al.* (2021) focusing on Malaysian educators, similarly found that motivating students to focus and encouraging them to be actively involved during online education modalities was a challenge.

Sub-theme 3: Problems with Internet connection and other technical aspects

Nurse educators regarded the various technical aspects including infrastructure and resources limited their use and efficiency of online modalities. They considered that load shedding by Eskom who is the sole supplier of electricity to municipalities causes disruptions to their use of online education strategies.

One participant added:

The only time...our country right now, that Eskom and that power supply, that is the biggest problem that you have, and if you don't have data. (P10; age 63)

The nurse educators also believe that the poor and unreliable internet connection prevents them from using online modalities efficiently

We also need an internet; proper, reliable internet. (P1; age 47)

One of the negative aspects of online education as found in many studies included poor internet connections that affected online teaching strategies (Shindjabuluka *et al.* 2022; Tuma *et al.* 2021; Shrestha *et al.* 2022). Many nurse educators in this study reported that they do not have a computer issued to them by the employer and had to use their own devices for work purposes. The nurse educators appeared disgruntled by this as some even complained of using their own laptops which broke while using it for work

I reported and they're quite aware that I don't have a computer in my office that is why I took the initiative to use my own laptop. (P5; age 47)

Nurse educators voiced that the employer did provide them with a limited amount of data which was not enough for their usage, and they had to resort to buying and using their own data.

Also, with the issue of the data, data is quite expensive at the moment and our government cannot always provide us with data (P21; age 50)

The issue of internet connectivity is not only specific to Africa. In Indonesia, Junus *et al.* (2021) also found that educators' biggest challenge was an unstable internet connectivity and made special mention of students living in remote areas. The researchers also found that lack of support in the form of equipment and technical devices was an obstacle.

In contrast to the above findings, one recent study in America pointed out the favourable experiences of the participants in two universities included ease of connectivity, availability of technical help, self-paced learning, convenience, cost effectiveness (Abdelaziz 2022). It is important to note that the study was in a first world country as opposed to the differences found in developing countries.

Sub-theme 4: Working beyond official working hours

Nurse educators felt that it was difficult structuring their work hours when conducting online education and their working time easily intruded into their own personal time. The nurse educators felt it was hard to manage this because of accessibility as well. The following excerpt illustrates this.

if you didn't structure your time, you actually would work into your personal time, that kind of thing. You didn't know when personal time ended and work time ended, and when work time began kind of thing. (P17; age 55)

The following excerpt suggested that nurse educators also felt that online education allowed them to work from home which did not really afford them the comfort that one would think it would, as this might intrude on their personal time as well.

When you're working from home, not necessarily you're having the comforts of working from home because you...it's very difficult to work from home. And sometimes you actually put in more work and more time...you put in more time, it's a longer day being at home, working and preparing for your lectures online and things like that, than being here at the campus. When you're at the campus, you know you're seeing the student from this time to that time, from

that time to that time. At four o'clock it stops. But with online, it goes beyond that time. So, I would think that there should be perks. (P3; age 50)

Sub-theme 5: Not suitable for clinical or practical teaching and learning

The clinical component is vital to nursing as it forms part of the nurse's core function. Many nurse educators felt that online modalities were not at all suitable for the clinical aspect of nursing as illustrated by the following excerpts.

Because, remember, we're not making cars here. It's a live person. A live person can die. So, you'll need a proper skill. After simulating it, do it in a live person. We must be skilful. (P11; age 58)

Another participant added:

No. Nursing is practical. You've got to be at the bedside. You have to see the patient. Therefore, there's no way you can teach the skill online. You have to demonstrate. I believe you've got to go to the wards with the student. (P5; age 47)

Another participant added:

"So, if let's say you are teaching the students via online, they won't be able to actually witness what you are doing. I don't think it will be a really, really suitable thing to do. (P20; age 52)

Some nurse educators did believe that online modalities have their place in clinical education such as the use of videos in demonstration of clinical skills as illustrated by the following excerpt.

I can understand in terms of your clinical where you have to go into the departments and where you have to observe your students hands-on, but also nothing stops your CSL being done virtually as well, where you can...and where videos can be uploaded and students from their home environment they can. (P7; age 51)

Another participant added:

But where they can touch base is when they feel there's a need they can come in the time on their timetable where they do their self-study and they can book that room and then they can re-watch the video and practice it on their own. So, it also makes the student more independent and they take responsibility for their learning, and I think that's a better way to go. (P11; age 58)

Another participant added:

Yes, it will be useful in practical. And another student is free if she's practicing on her own without tutor being there. If you are alone, you do it at your own pace and if you are not sure you stop and you look and you practice. But it depends on how much data you have. (P19; age 52)

In line with these findings researchers found conducting practical classes online extremely difficult as opposed to the theoretical component which they found to be easier (Nambiar, 2020; Kulal & Nayak, 2020; Joshi 2021).

4.5.3. Theme 3: Perceived Barriers for effective implementation of online education

The nurse educators believed that there were barriers that prevented their effective use of online modalities. These included the lack of infrastructure, inadequate technology skills and support and the attitudes of students and lecturers.

Sub-theme 1: Lack of infrastructure

Nurse educators felt that they should be supplied with necessary infrastructure and equipment in order to carry out their online activities. All the nurse educators voiced that there was availability of tablets that the employer made possible, however it was a few tablets that all staff had to share. These tablets were kept by the management of the campus and sometimes were not available as they were being used by other educators. This created a problem for the nurse educators when they needed to use one. The nurse educators also felt that it was awkward to borrow these tablets when they needed to use them and would prefer if each educator had their own tablet or device.

One participant stated:

We do have tablets, also they are not for everyone, they are not sufficient (P14; age 55)

The nurse educators also mentioned that they could not take the tablets out of the campus so they could not take it home should they want to use it outside working hours as illustrated by the following excerpt.

“but then at home you use your own computer or you use your own cell phone, your smartphone, that you are using” (P15; age 42)

The nurse educators also verbalised their unhappiness of using their own devices at home. The following excerpt indicates the problems encountered when using the device provided by the employer which they had to share

We had an incident where the tablet is not working. Why? It’s been switched off, kept safely in the safe. It hasn’t been updated. Now when you need it, it is giving you glitches. So, obviously now that...because I know my discipline must run, I take the tablet home, I update it on my own Wi-Fi. I take it home at least twice a month. So, those are the resources. (P1; age 47)

Nurse educators also voiced their concern about not having computers which are fundamental tools that should be issued by the employer for the educator to carry out their core functions, illustrated by the following excerpt.

But another challenge that we’re having, we do not all of us have computers. We share, which is another challenge for us. It’s not all of us have got laptop. We were promised laptops but we are still waiting. (P19; age 62)

In order to use any form of internet connectivity, data is needed. The nurse educators voiced that the tablets that they share are loaded with data but not enough to carry out their activities as mentioned in the following excerpts

But in terms of the resources we don’t have data. (P21; age 50)

Another added:

The positive implications are that, if they were to provide us with data, etc, we can do more. But if they don’t provide us with data, we’re going to adopt this less. (P12; age 55)

Nurse educators also voiced how they would purchase their own data which became a costly affair as mentioned by one participant

Well, I’m good but the cost of data is whose? Who bore the cost of that data? Us, the lecturers. We had to use our own data at huge cost to ourselves, for some of the lecturers. (P9; age 50)

While another added that:

It is a costly affair if you have to get data every month, if your department doesn’t provide it for you. I wouldn’t think that...it still saves you a lot in that I

get twenty gigs of data for a hundred and thirty-five rand a month. (P10; age 63)

According to Mbanga and Mtembu (2020) the intentions of an institution to implement online education can be measured by the availability of their equipment that support this modality. It is clear from the study that the perceived lack of infrastructure and resources at the institution is a barrier to the educators implementing online strategies. Various studies, mainly in developing countries support the fact that a lack of infrastructure and equipment remains one of the biggest barriers to successfully implementing online education (Nwagwu, 2019; Shindjabuluka *et al.* 2020; Mpungose 2020; Paudyal & Rana 2021).

Sub-theme 2: Inadequate technology skills and support

Educator self-efficacy can be described as the educator's belief in their own ability to contribute to the achievement of student outcomes (Kaqinari *et al.* 2021). An educator might feel competent in the traditional classroom setting but might lack self-confidence and the resultant self-efficacy in the online education environment. Nurse educators in this study felt that they do not have the necessary skills to conduct online education effectively and in order for them to use online education modalities effectively, training is vital and imperative as illustrated by the following excerpts

I would think everybody does need training, they all do their training on basically how to use IT and how to use... (P1; age 47)

Another added:

What I would like the management to do is to get someone that will physically come and train us on online teaching so that we know what we are doing because we cannot be teaching at home when we don't know. Once you are experiencing problems it means now there will be no progress on that lecture that you are teaching. I feel that someone must come and train us. We must go for a [data? – 00:10:50] training on online teaching. (P4; age 56)

Yet another added:

I think it's a good idea to introduce and to also to in-service lecturers and teachers, more on how online teaching should actually...how we should go about because we are not aware of certain things. (P9; age 50)

Nurse educators did voice that they received training that the employer provided:

Yes. As I said earlier on, we do attend webinars, FUNDISA, they did give us in-service on that so that we gain more information and more knowledge on this online teaching. (P18; age 52)

However, they felt that the training was not the best and didn't meet their needs:

So, I get a link, I can see the picture, but I can't hear anything. So, there have been opportunities but they have not been the best opportunities, that's what I'm saying. (P1; age 47)

The nurse educators also find that they do not have the time to attend the training workshops that may be provided by the employer.

You'll always get notification of this workshop and that workshop, which is wonderful. We all know those workshops are being help. But do we really have the time to log on every single time? We don't. We've got other teaching and learning responsibilities, and that's why I'm saying I find that a particular challenge. (P12; age 55)

Some nurse educators mentioned that only few of their colleagues would attend workshops and it was expected that they receive feedback from those who attended which did not materialise.

Here was the training, two lecturers went, but when they came, they still had hurdles in relaying it to the people who didn't go. And I was amongst the people who did not go and who didn't even attend it, meaning that management need to really ensure that workshops are given, not just for two people but even ensure that the people who went are going to relay it. (P13; age 60)

Similar findings arose from the literature emanated including the inadequate knowledge and digital skills of educators on how to use the various platforms (Shindjabuluka *et al.* 2022 ; Shrestha *et al.* 2022; Joshi 2021) and how this is a barrier towards implementing online education.

Sub-theme 3: Attitudes of students and lecturers

Attitude refers to the way one thinks, feels and behaves towards a particular stimulus (www.oxfordlearnersdictionaries.com). We find that attitude can either be favourable or unfavourable towards the stimulus which will ultimately influence the behaviour towards it. According to Kaqinari *et al.* (2021), educators with a positive attitude towards online education modalities would be more motivated in their efforts to

incorporate it into their teaching. The nurse educators generally seemed to have an apprehensive attitude towards online education modalities which could be due to various external factors. They felt that it was time consuming, and they didn't have the expertise as indicated by the following excerpt.

For me, I feel it very time-consuming because I'm a bit slow in computer literacy and it was self-taught. (P16; age 46)

The nurse educators also felt that students generally prefer the traditional face to face although the researcher finds this invalidated.

And another thing, some of the students, they like face to face because they want to ask you directly and do explain directly, to be able to read you in all the angles and all how also...to read your face and read how you are expressing that. (P14; age 55)

The nurse educators felt that older staff did not like online education modalities and generally had problems.

Because we've got also an aging staff. The aging staff really don't like technology and they really battle. (P12; age 55)

The following excerpt also points to the fact that nurse educators did not prioritise the training being given by the employer on online education modalities...

I sometimes feel that not all of the staff are available when those workshops are held. (P12; age 55)

Semerci and Aydin (2018) conducted a study using 353 participants in Ankara and found that lecturers who perceived themselves as competent in using online education modalities had undergone relevant training and were therefore less apprehensive in using it in their teaching. Junus *et al.* (2021) support this study mentioning in their report that educators found helping students to improve their readiness to go online was a challenge after using a mixed method approach to evaluate lecturer readiness for online classes in Indonesia. The report also indicated that educators found the time constraints and managing their time to adapt to new technologies as challenging,

supporting this study. The participants in the study also felt that it took longer to prepare lecture materials which caused them anxiety. Tuma *et al.* (2021) also reported, in line with this study, that the perceived fatigue of listening to online lectures by the students was a challenge.

4.5.4. Theme 4: Perceived measure to promote the use of online education

The nurse educators perceived the measures to promote the use of online education modalities as a need for support by the institution, need for reimbursements and proper dishonesty detectors as described as follows.

Sub-theme 1: Need for support by the institution

At the inception of adopting a new way of teaching, a learning institution has the responsibility to make sure that their personnel are trained in the new way of teaching, and continued in-service training is provided on the new medium of instruction and assessment strategies (Anderson & Magruder 2012). In this study, in terms of the nurse educator's perceptions of their preference on the type of support they needed, almost all nurse educators felt they needed more training in online education modalities as is evidenced by the following excerpts. Nurse educators feel that even though they do receive training, the training might not be relevant, does not meet their needs and maybe inadequate.

Some participants reported that:

More in-service should be done with technology and how to conduct online teaching, then I think we'll be more competent and confident in carrying out this online teaching. (P15; age 42)

Training, proper training. Proper workshops, monitoring that people have all gone and people are versed with it. (P13; age 60)

And I think we also would need more in-service training with regard to conducting online learning. Yes, we did have, but I think we'll also benefit if we did have more in-service training. (P10; age 63)

We did attend in-service training but I think more can be done in that capacity. (P4; age 56)

Another type of support that nurse educators believe they should have is a dedicated person to ICT issues to assist them with their day-to-day activities using online modalities. The following excerpts indicate this

One participant added:

I believe we need a dedicated person so that, when I need to go online and my computer is giving me glitches, I've got someone to come and assist me. (P1; age 47)

Another added:

But you need to have somebody by you when you're opening up this thing, applications. Sometimes you can just lose it and you don't know how to go on, or you open too many applications and then you're gonna have problems as well." (P10; age 63)

Another participant added:

I think it's very important. We should be having an IT person that's here. (P3; age 50)

Other studies found that training in managing online resources, tools and platforms, training to boost student morale, training for teachers to assist students psychologically and workshops that will assist in embracing online teaching methods would greatly improve the implementation of online education. (Joshi 2021; Tuma *et al.* 2021; Shindjabuluka *et al.* 2022; Shrestha *et al.* 2022).

Sub-theme 2: Need for incentives in the form of reimbursements for teaching online

Nurse educators believe that there should be given incentives and reimbursed for teaching from home as illustrated in the following excerpts.

When it comes to financial matters as well, it would be nice if we were taught and the leeway being given to lecturers if we can be even given a chance to even teach from home and to actually reimburse that person for teaching from home. (P9; age 50)

Another added:

When you're at the campus, you know you're seeing the student from this time to that time, from that time to that time. At four o'clock it stops. But with online,

it goes beyond that time. So, I would think that there should be perks. (P3; age 50)

One recent study conducted by Shrestha *et al.* (2021), in the context of Bangladesh found that educators felt they should be paid more when conducting online lessons and the lack of a decent incentive in terms of salary affected their mental health (Shrestha *et al.* 2021). Duc-Long *et al.* (2021) conducted a recent study in Vietnam and also found that educators felt they should have a separate salary for conducting online classes.

Sub-theme 3: Utilisation of accurate dishonesty detectors during online assessments

Reasons for academic dishonesty are far and varied. Nurse educators believe that students would find it easy to cheat during online assessments as evidenced by the following excerpt

I've not used it but a friend of mine told me that students they can copy each other using the online, unlike when they write an examination. So, our children, they know technology far better than us. If you are slow, they can copy without you noticing that they are copying. That's the disadvantage. (P19; age 62)

Nurse educators believe that honesty detectors could be used for the effective implementation for online assessments. They believe that the appropriate technology could assist with this. The nurse educators also compared what other institutions were doing in relation to online assessments as indicated in the following excerpt.

I think if you're using the right online assessment tools, then you shouldn't have a problem with honesty. And you can...which I've seen, I haven't tried as yet, that when you're looking at online assessments, there's a timer that you use. So, the students do the first question and they have a minimal amount of time in which to do the question before the question gets taken away." (P12; age 55)

Amzalag *et al.* (2021) conducted a study on academic dishonesty during the COVID-19 pandemic and concurred with the above findings.

4.6. SUMMARY

In this chapter, the results of the study on the perceptions of nurse educators towards online education was discussed after the data was analysed, reduced to codes and thereafter built into themes and sub-themes. The discussion incorporated quotations from the nurse educators who were the participants in the study which gave the results and discussion a rich context of the perceptions of nurse educators towards online education. The results were also compared to findings from other studies which formed part of literature control. In the next chapter, conclusions, limitations, and recommendations of the study will be discussed.

CHAPTER 5: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1. INTRODUCTION

In the previous chapter the results of the study were discussed after reducing the data to codes and then categorised it into themes and sub-themes. The discussions included quotations from participants as well as literature from previous research which was relevant to the themes and sub-themes. In this chapter, conclusions, limitations, and recommendations will be made from the study.

The objective of this study was to determine the nurse educators' perceptions towards online education using a qualitative approach. Semi-structured interviews with 21 nurse educators were conducted from 3 campuses which form part of the broader public nursing college in Kwa-Zulu Natal. The four (4) broad themes that were identified included the perceived advantages of online education; perceived disadvantages of online education; perceived barriers for effective implementation of online education; and perceived measures to promote the use of online education.

5.2. CONCLUSIONS

Conclusions from the study are drawn from the themes, sub-themes and codes which form part of the results and the literature control. As discussed in the previous chapter, data from 21 semi-structured interviews were reduced to codes and thereafter built into themes and sub-themes. Conclusions from the major themes include the perceived advantages of online education; perceived disadvantages of online education, perceived barriers for effective implementation of online education; and perceived measures to promote the use of online education. These conclusions on the individual major themes will provide a greater understanding of them and their relevance to the objective of the study. Conclusions of themes are discussed in the following sections.

5.2.1. Conclusions with respect to perceived advantages of online education

All nurse educators agreed that the benefits of online education were vast and varied thus creating a whole new dimension to nursing education. From the study, the

researcher concluded that the advantages of online education included flexibility; cost effectiveness; time efficiency; improved feedback; and encouraging innovative ways of teaching and learning. The researcher can assume that the nurse educators' perception of the advantages of online education was compared to the traditional classroom teaching.

It is against this context that the nurse educators perceived online education as being more flexible in terms of time, place, and presence. The educators felt that the flexibility goes as far as affording the "off-sick" student the opportunity to still attend a lesson. The participants also alluded to the fact that flexibility of online education brought about a certain level of comfort. Through common experience as a learner or educator, comfort improves many facets of teaching and learning.

The study also suggests that online education saves all stakeholders involved, the student, the educator, and the institution overall time and money. Against a political economic climate such as is currently prevalent in South Africa, this has far reaching implications for all concerned.

Feedback can be from the educator to the student as well as from the student to the educator. The learning that takes place as a result of feedback cannot be underestimated. The advantage of improved, efficient feedback suggests that teaching and learning activities are greatly enhanced. It can also be accepted that because feedback is not restricted to traditional hours, teaching and learning becomes a continuous process through online education modalities.

In a world where change is the only constant, creativity and innovation is imperative to all facets of our lives. This study suggests that online education encourages innovation and creativity which should be a vital aspect of education not only in nursing but in all professions in the labour market.

5.2.2. Conclusions with respect to perceived disadvantages of online education

Among the great advantages and benefits of online education in nursing, participants also perceived the disadvantages as being very much apparent. The study suggests that the disadvantages of online education include dishonesty; limited interpersonal relationships; problems with internet connection and other technical aspects; working

beyond official working hours; and not being suitable for the clinical aspect of teaching. The study suggested that online education modalities created a playground for dishonesty. Participants did not shy away from elaborating on their perceptions regarding dishonesty in assessments and during normal online lessons as well as other online teaching strategies. The participants also felt that there were limited mechanisms in place to reduce dishonesty, if any at all. This should be of grave concern for the institution and should be prioritised for online education to continue.

Another perceived disadvantage was the obvious fact that education online brings about limited personal interaction which can have a detrimental effect to the teaching and learning process. The nurse educators alluded to the fact that they were unable to gauge the non-verbal responses and maintain the attention of students during online modalities. Against the backdrop of the traditional classroom where face to face interaction is high, this disadvantage can seem quite impelling.

From this study as well as other relevant literature, especially in developing countries, the problems with internet and other technical aspects seem to be the biggest disadvantage of employing online education modalities. The nurse educators mentioned problems such as load shedding, poor internet connection, lack of computer, limited data, and having to fund their own use of online activities in terms of devices and data as being the biggest disadvantage in the implementation and use of online education modalities. From the literature it was refreshing to note that developed countries did not have these obstacles and were rather pain free in implementing the online modalities. Because South Africa is a “developing country” it gives encouragement in the sense that we can only progress to become a “developed country” one day.

The researcher found that nurse educators had problems structuring their time and they often found themselves working into their own personal time. The nurse educators also felt that although online education afforded them the flexibility of working from home, they did not have the comfort of their own homes in terms of a working environment which also contradicted some studies where participants expressed the comfort of working from home.

Nursing education is composed of a 60% clinical aspect vital to the effective functioning of a nurse. This component can be considered the core function of a nurse. The study revealed that nurse educators were unsure and apprehensive towards the use online modalities towards online education. While some participants demonstrated that online modalities do indeed have a very tangible place in the clinical component, others felt that it would reduce the quality of nursing education. The researcher believes that this may point towards the inadequate training or the lack of knowledge in different avenues of online modalities which could improve the clinical education component of nursing.

5.2.3. Conclusions with respect to perceived barriers of effective implementation of online education.

The study concluded that the perceived barriers to effectively implementing online education included the lack of infrastructure, inadequate technology skills and support and the general attitudes of students and lecturers.

The fact that lecturers have to share computers, devices, and purchase their own data not only poses a significant challenge to the implementation of online education but also, to nurse educators carrying out their general roles and responsibilities. The researcher finds this totally unacceptable in the 4th industrial revolution where a Higher Education Institution educator does not have the basic tools to carry out their duties.

The study concluded that the nurse educators do not have the necessary skills to carry out their online teaching and learning, and require relevant, adequate, structured training and an ICT support mechanism to carry out their duties and roles.

With regards to the attitudes of educators towards online education modalities, the study suggests that educators generally have an apprehensive attitude towards online education which could be attributed to a lack of training and poor self-efficacy as discussed before. The researcher is of the opinion that it would be unfair to draw conclusions about the attitudes of the students towards online education as the semi-structured interviews were conducted with the nurse educators and not with the students.

5.2.4. Conclusions with respect to perceived measures to promote the use of online education modalities

The study concludes that in order to promote the use of online education modalities it is vital for the institution to provide adequate support, incentives in the form of reimbursements and proper mechanisms to avoid dishonesty.

With regards to support that should be provided by the institution, the study concludes that adequate, structured training should be provided as well as a dedicated ICT person that can tend to the needs of the nurse educators.

This study also concludes that nurse educators should be reimbursed for using online modalities when they are not supplied with appropriate devices and data, especially since the nurse educators' work beyond their normal working hours. It is important to keep in mind that the nurse educators are using their own tools which includes devices, routers and data which they bear at their own cost.

With regards to dishonesty, the study concludes that there is a need for appropriate dishonesty detectors to conduct online assessments. In this regard nurse educators should also look at creative strategies to conduct assessments which may require a new mind-set change as to how assessments are conducted in an online environment.

5.3. LIMITATIONS OF THE STUDY

The purpose of the study was to explore and describe the perceptions of nurse educators towards online education at the public nursing college in the Kwa-Zulu Natal Province using an interpretive, explorative, qualitative research design. The study did have the following unavoidable limitations:

- The study did not seek to interpret the findings to any significant depth but to merely present summaries of the perceptions of nurse educators towards online education which was in line with the chosen research design.
- The study lacks generalizability to other Nursing Higher education institutions as different institutions may have different contexts in which they function.
- Convenience sampling involves choosing readily available participants for the study (Brink et al 2018:125). Participants in this study were not chosen according to

any specific criteria in term of demographics therefore generalizability of the findings outside of the public nursing college is not suggested.

- The use of semi-structured face-to-face interviews was time consuming in terms of preparation, conducting interviews and analysing, costly in terms of transport and transcribing and required advanced interviewer skills.
- The availability of the participants was sometimes problematic as they were involved in other activities.

5.4 RECOMMENDATIONS

This study attempted to explore and describe the perceptions of nurse educators towards online education. Using the findings, previous literature and conclusions of this study, recommendations for nursing education, nursing practice and nursing research are provided for in this section.

5.4.1. Recommendations for nursing education

In this section recommendations for the effective implementation of online education in nursing education will be made taking into consideration the findings from the study and the available literature. The recommendations for nursing education include proper infrastructure and equipment, proper training and support, improving the attitudes of nurse educators, reducing dishonesty, encouraging innovative ways of teaching and learning, predetermined clear working arrangements, and making online education suitable to the clinical component.

5.4.1.1. *Appropriate infrastructure and equipment*

The employer should not expect the employee to do a particular job without providing the necessary tools. The institution should provide the nurse educators with computers or devices that will enable the employees to use online education modalities. Besides teaching and learning purposes these devices can also be used for the general administrative purposes related to normal work activities of the lecturer as well as meetings the nurse educator might need to attend. Unlimited data should be provided to all nurse educators. This can be in the form of unlimited Wi-Fi access points at the respective campuses instead of the limited number of routers with limited data.

If the employer cannot provide the tools for the employee to do his work, employees should be reimbursed for using their own data and devices. If the employer cannot afford cash incentives, then other creative ways to compensate the employee can be used, for example, extra leave or flexible working arrangements.

5.4.1.2 *Suitable training and Support*

The employer should ensure that the correct training and support that meets the needs of the nurse educators should be provided. There should be dedicated days that make it compulsory for the nurse educators to attend the training. Educators should not have to miss out on training provided because they have other roles and responsibilities.

Support in terms of a dedicated ICT person that specifically supports the nurse educators and other staff members should be employed at the campus. If the employer feels that they cannot afford this, then employees in the institution can be sent for training in terms of ICT. The employees sent for training can also be nurse educators who can assist others when the need arises.

5.4.1.3. *Improving the attitudes of nurse educators*

Proper training in ICT and conducting online education can improve the self-efficacy of nurse educators thereby improving the attitudes of the nurse educators. Workshops on the various dynamics of online education modalities, its importance, advantages, indirect perks, the flexibility it brings, and the need for change should be introduced to improve the attitude of nurse educators.

The financial profits of the cost effectiveness of online modalities can be redirected to providing incentives as well as proper equipment to the nurse educators.

5.4.1.4. *Reducing the potential for dishonesty during online assessments*

The employer should use the latest technology to prevent dishonesty during online assessments. Even though it might seem costly, the long term cost efficiency in terms of arranging venues, invigilators, marking and moderating might be reduced.

It is also suggested that new and creative ways of conducting online assessments should be considered. This requires an entire change in mind-set taking into

consideration all the resources the student can have at their disposal when writing an exam.

5.4.1.5. Encouraging innovative ways of teaching and learning

The employer should encourage new and innovative ways of doing things that may not always be prescribed by the literature but by the spontaneous ideas in the different unique contexts that the nurse educators encounter. Nursing is a unique profession where various opportunities arise to be creative in the theoretical as well as clinical components. Sometimes management themselves are resistant to change.

5.4.1.6. Procedures and policies

Online education brings about a new dimension to teaching and learning, control of students and staff, communication, and other administrative processes. Management of nursing education institutions should be proactive in drawing up procedures and policies in this concern. This will ensure activities run fluidly with minimum disruption.

5.4.1.7. Predetermined clear working arrangements

There should be clear working arrangements which can be creative and innovative in consultation with the nurse educators. The adoption of flexibility as opposed to the normal 7 to 4 working hours should be adopted. Nurse educators should be allowed to, in consultation with the employer to structure their working needs that suits the needs of the institution, the nurse educator and the student. From the findings of this study as well as other studies it was noted that flexibility of online education brings about new dimensions to time, place, and presence. This should be fully taken advantage of to meet the changing needs of education as well as society.

5.4.1.8. Making online education suitable to the practical component

From the findings of the study, some nurse educators seem apprehensive about the use of online educations modalities in the clinical component. Nurse educators should be sent for training on the usage of online education modalities in clinical nursing education to make full use of this strategy. However, this study suggests that it is imperative that face-to-face interaction within the student-patient relationship remain intact, and the online modalities be used as an adjunct to the traditional methods. The caring aspect of nursing that involves the face-to-face interaction and the affective

component with direct contact and involvement between the patient and nurse can never be underestimated.

5.4.2. Recommendations for nursing practice

The use of ICT in health care is growing. Nursing is not exempt from this. Online modalities can improve the way nursing is practiced from the novice to the more experienced nurse. From this study as well as the available literature we can see a definite outcry for the use of online modalities to improve the nursing fraternity.

- It is recommended that online education modalities be included in nurse training curriculums as modules with specific outcomes and core competencies. This will ensure that online education is taken seriously instead of something used just as a form of communication. It should be seen as a means to teaching and learning.
- It is recommended that training in the form of workshops in online education modalities should also be given to permanent nursing staff and not only students. This will help broaden the horizon of all categories of nursing staff and can also be used as a form of continuous professional development.
- Practicing nurses should be encouraged to use online modalities during their work. For example, a nurse can use the internet, from merely googling specific conditions to drawing up care plans. The actual use of online education modalities here is limitless and can have a profound effect on improving the efficiency of the nurse to ultimately improving the care of the patient.
- Infrastructure and equipment should support the use of online modalities such as the employer providing unlimited Wi-Fi access to the internet at health care institutions. Health care institutions should prioritize the supply and use of online modalities at the workplace.

5.4.3. Recommendations for nursing research

There is huge gap in the literature with respect to the use of online education modalities in nursing education. Nursing education should be considered from the point of view of all, from the novice student nurse to the more advanced experienced post graduate nurse. The lack of literature on the topic extends more specifically to the South African context which is unique. It must also be noted that public nursing education institutions might fare differently to private nursing education institutions. The following recommendations are made in this regard:

- Research into perceptions of students on the use of online education modalities in the province. The study can be done comparatively between public nursing educations institutions and private nursing education institutions.
- Mixed methods studies using triangulation can be used to obtain perceptions of both the nurse educators and well as students with regards to online education in nursing.
- Research into the use of Learning Management Systems.
- Research on the perceptions of management on the use of online education modalities.
- Research into the use of online education modalities in clinical nursing
- Research in the affective component of nursing with the regards to the use of online education modalities.

5.5. GENERAL CONCLUSION

In this study the perceptions of nurse educators towards online education at the public nursing college in the Kwa-Zulu Natal province was explored using an interpretive, descriptive qualitative design. Twenty-one participants were interviewed using semi-structured, individual face to face interviews. The study concluded that nurse educators perceive that there are both advantages and disadvantages to online education. Therefore, in order to promote the use of online education modalities in the province, it is vital for the institutions to attend to those perceived disadvantages while enhancing perceived advantages. Furthermore, the study concluded that the perceived barriers to the effective implementation to online education included lack of infrastructure, inadequate technology skills as well as little or no support. Therefore, the successful implementation of online education depends on collaboration amongst all stakeholders.

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Annexures

1.1 Annexure A: Ethics Approval Document



COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

14 December 2021

Dear Mr Savitri Govender

Decision:
Ethics Approval from 14 December
2021 to 14 December 2024

NHREC Registration # :
Rec-240816-052
CREC Reference # :
35320869_CREC_CHS_2021

Researcher(s): Name: Mr Savitri Govender
Contact details: 35320869@unisa.ac.za
Name: Dr K.L. Mafihaba
Contact details: mafihabk@unisa.ac.za / Tel: 012 438 3073

Title: Perceptions of nurse educators towards online education in the Kwa-Zulu Natal province

Purpose: MA

Thank you for the application for research ethics clearance by the Unisa College of Human Science Ethics Committee. Ethics approval is granted for three years.

The low risk application was reviewed by College of Human Sciences Research Ethics Committee, in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the



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confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date (14 December 2024). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 35320889_CREC_CHS_2021 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Signature: 

Prof. KB Khan
CHS Research Ethics Committee Chairperson
Email: khankb@unisa.ac.za
Tel: (012) 429 8210

Signature: 

Prof. K. Masemola
Executive Dean: CHS
E-mail: masemk@unisa.ac.za
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1.2 Annexure B: KZN DoH Permission Letter

 health Department: Health PROVINCE OF KWAZULU-NATAL	SWAZULU-NATAL COLLEGE OF NURSING HARRY GWALA NURSING CAMPUS (2013)						
Physical Address: 28 Havelock Road, Pietermaritzburg, 3201 Postal Address: Private Bag 8099, Pietermaritzburg, 3200 Tel: 033-392477, 033-39276650-047951 Fax: 033-3926269	E-mail: principal@kznhealth.gov.za E-mail: principal@kznhealth.gov.za www.kznhealth.gov.za						
	Reference: Permission Letter Enquiries: Mrs. F.T. Zondi Date: 11 February 2022						
Principal Investigator:	Mr Savitri Govender University of South Africa (UNISA) Student number: 35320869						
COURSE:	Master of Arts in Nursing Science						
RE:	Gatekeeper Permission to conduct research at Harry Gwala Nursing Campus						
TITLE:	Perception of nurse educators towards online education in the Kwa - Zulu Natal province						
Dear Mr Govender:							
I have pleasure in informing you that Gate Keepers permission has been granted to you per above request by the Principal – Harry Gwala Nursing Campus.							
Data Collection Site: Harry Gwala Nursing Campus							
Please note the following:							
<ol style="list-style-type: none">1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.2. This research can only commence once you have received approval from the provincial health research committee in the KZN Department of Health, Kwa-Zulu Natal College of Nursing and full approval from University of Natal.3. Harry Gwala Nursing campus will not be providing you with any resources for this research.4. You will be expected to provide feedback on your findings to the Principal – Harry Gwala Nursing campus.							
Thank you							
 MRS F.T. ZONDI HARRY GWALA CAMPUS PRINCIPAL	<table border="1"><tr><td colspan="2">DEPARTMENT OF HEALTH KWAZULU-NATAL HARRY GWALA NURSING CAMPUS S2013 PRINCIPAL</td></tr><tr><td colspan="2">11-02-2022</td></tr><tr><td>PRIVATE BAG 8099 PIETERMARITZBURG 3200</td><td>28 HAVELOCK ROAD PIETERMARITZBURG</td></tr></table>	DEPARTMENT OF HEALTH KWAZULU-NATAL HARRY GWALA NURSING CAMPUS S2013 PRINCIPAL		11-02-2022		PRIVATE BAG 8099 PIETERMARITZBURG 3200	28 HAVELOCK ROAD PIETERMARITZBURG
DEPARTMENT OF HEALTH KWAZULU-NATAL HARRY GWALA NURSING CAMPUS S2013 PRINCIPAL							
11-02-2022							
PRIVATE BAG 8099 PIETERMARITZBURG 3200	28 HAVELOCK ROAD PIETERMARITZBURG						
<hr/> <p style="text-align: center;">Fighting Disease, Fighting Poverty, Giving Hope</p>							

1.3 Annexure C: KZN Gate Keeper Approval letters

 KWAZULU-NATAL PROVINCE HEALTH REPUBLIC OF SOUTH AFRICA	DIRECTORATE: KwaZulu-Natal College of Nursing
Physical Address: 211 Pietermaritzburg Street, Pietermaritzburg 3200 Postal Address: Private Bag X 3029 Pietermaritzburg 3200 Tel: 033 264 7900 Fax: 033 294 1204 Email: info@kzn.health.gov.za www.kzn.health.gov.za	
Reference: Mrs. S. Mahara) Date: 08/03/2022	
Principal Investigator: Siviten Govender University of South Africa Ref No: 35320869_CREC_CHS_2021	
RE: REQUEST FOR GATE-KEEPER APPROVAL TO CONDUCT RESEARCH AT THE KWAZULU-NATAL COLLEGE OF NURSING	
TITLE: PERCEPTIONS OF NURSE EDUCATORS TOWARDS ONLINE EDUCATION IN THE KWAZULU-NATAL PROVINCE	
Dear Mr Govender	
I have the pleasure in informing you that Gate Keeper permission has been granted to you by the Principal of the KZN College of Nursing:	
Data Collection site(s):- All Campuses of the KwaZulu-Natal College of Nursing	
Please note the following:	
<ol style="list-style-type: none">1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.2. Kindly adhere to all COVID 19 protocols of the institution3. This research can only commence once you have received approval from the Provincial Health Research Committee in the KZN Department of Health.4. Gate keeper permission is therefore granted for you to conduct this research at the above identified campuses after consultation with the Campus Principals.5. The KwaZulu-Natal College and its NEI's will not be providing you with any resources for this research.6. You will be expected to provide feedback on your findings to the Principal of the KwaZulu-Natal College of Nursing.	
Thank You	
 DR. S.Z. MTHEMBU PRINCIPAL: KZN COLLEGE OF NURSING	 DATE:
GROWING KWAZULU-NATAL TOGETHER	



health
Department
Health
PROVINCE OF KWAZULU-NATAL

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Postal Address: Private Bag 1096, Pietermaritzburg, 3200
Tel: 033-312-1111 / 033-312-1111 / 033-312-1111

033-312-1111 / 033-312-1111 / 033-312-1111
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033-312-1111 / 033-312-1111 / 033-312-1111

KWAZULU-NATAL COLLEGE OF NURSING
MERRY DWALLA NURSING CAMPUS 3210

Reference: Permission Letter
Enquiries: Mrs. R.T. Zondi
Date: 11 February 2022

Principal Investigator: Mr Savitan Govender
University of South Africa (UNISA)
Student number: 35320869

COURSE: Master of Arts in Nursing Science

RE: Gatekeeper Permission to conduct research at [REDACTED]

TITLE: Perception of nurse educators towards online education in the Kwa - Zulu Natal province

Dear Mr Govender

I have pleasure in informing you that Gate Keepers permission has been granted to you per above request by the Principal - [REDACTED]

Data Collection Site: [REDACTED]

Please note the following

1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research can **only commence** once you have received approval from the provincial health research committee in the KZN Department of Health, Kwa-Zulu Natal College of Nursing and full approval from University of Natal.
3. [REDACTED] will not be providing you with any resources for this research.
4. You will be expected to provide feedback on your findings to the Principal - Merry Dwalla Nursing campus.

Thank you

MRS R.T. ZONDI
[REDACTED]

DEPARTMENT OF HEALTH KWAZULU-NATAL
PRINCIPAL
11-02-2022
PRIVATE BAG 1096
PIETERMARITZBURG 3200
28 HAVELOCK ROAD
PIETERMARITZBURG

Ungqongqongwe - Uqongqongqongwe - Ungqongqongwe

1.4 Annexure D: Signed informed consent

Appendix 6
CONSENT TO PARTICIPATE IN THE STUDY

I, [REDACTED] (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the face-to-face semi-structured interview.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname [REDACTED] (please print)

Participant Signature.....[REDACTED] Date 25/10/2022

Researcher's Name & Surname... Saviten Govender (Please print)

Researcher's signature.....[Signature] Date 29/10/22



Appendix 6

CONSENT TO PARTICIPATE IN THE STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

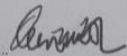
I agree to the recording of the face-to-face semi-structured interview.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname..... (please print)

Participant Signature..... Date 25/10/2022

Researcher's Name & Surname... Saviten Govender (Please print)

Researcher's signature.....  Date 25/10/22



1.5 Annexure E: Language Editing Certificate



Supplier Database No: MAAA0450241
PostNet Suite #40
Private Bag X04
Menlo Park 0102
Mobile: 060 530 1165
Email: noteworthy@myconnection.co.za /
honey@myconnection.co.za

26 January 2023

TO WHOM IT MAY CONCERN

This serves to confirm that the thesis entitled: *PERCEPTIONS OF NURSE EDUCATORS TOWARDS ONLINE EDUCATION IN THE KWAZULU- NATAL PROVINCE*.

By: **Saviten Govender**, Department of Health Studies, UNISA.

has been professionally edited by one of our accredited English mother-tongue language editors. The accuracy of the content of the final work remains the authors' responsibility.

A handwritten signature in black ink, appearing to read 'Dr MC Steyn'.

Dr MC Steyn

Scribing, Proof-reading and Editing Services

1.6 Annexure F: Turnitin Report

perceptions of nurse educators towards online education in the kwazulunatal province

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1.7 Annexure G: Sample of Interviews

INTERVIEW 1

I Good morning, ma'am. I am Saviten Govender. I am conducting a study on the perceptions of nurse educators towards online education in KZN. My supervisor is Dr Kholofelo Matlhaba from UNISA. Thank you for accepting to participate in the study and for signing the consent. As you know, your name will not be mentioned anywhere and the duration of this study will be not more than an hour. So, why I've selected you is because you are a nurse educator and you'll be affected by online education, if not now then in the near future. You can withdraw from the study at any time. And the benefits for you of the study is that you become aware of your perceptions towards online education, you will help to bring the gap in the knowledge base of online education and implement training strategies, and you'll also assist policymakers to ensure that the needs of nurse educators are met.

P Good morning.

I Good morning. How are you?

P I'm fine thanks, and you?

I Okay. So, what do you understand by the term online education?

P Online education, I understand that it is not a face-to-face interaction with the students and it can be done online where also you can also use...what do you call this thing? [INDISTINCT – VOICE CLARITY – 00:01:35] the virtual Microsoft Teams where also you can interact with the students when the students they are where they are at that particular time and also, on top of that as well, you can even have your lesson and with that lesson as well it can also be in a video form where also you are able also to have that and you can also send it to your students where students also they'll be able to now and again go back to that lesson in the form of a video. And also the online also it can be an interaction where the students also they...it becomes live where the students also they'll be able also to interact with you and you are able to discuss that particular topic whilst also you are online whereas that is not a face-to-face contact but it's over...it's either you use it telephonically or you use it also through the app as well.

I How do you feel about it?

P For me, I like it. I like it in a sense that, though you've done your face-to-face interaction but also if then also...for example, in the case then the student still wants to contact you and also maybe you still want to clarify something and you are no longer face to face, or maybe even the time for a face-to-face has expired but, still, you still want to discuss some of the points with regards to that, so you can use the online where maybe the student is in the nurses' [INDISTINCT – VOICE CLARITY – 00:03:33] and the student their study period they are not even in the campus, then also maybe also you are at home and the student maybe is also at home, you can do that as well. So, it makes teaching and learning exciting and continuous and it...it makes it continuous and it helps also with clarification of areas now not rushing for an allocated time like in the face-to-face because there you can have...when you are in the relaxed mood and the student is in a relaxed mood and all those things, so also it...I like it. For me, I feel it's a good one. And it also limits the face-to-face interaction and it also helps with a flexi-time for both lecturer and a student where both of them they've got no pressure but now they are in a relaxed mood and the student is able to open up at that time. Also, on top of that, during teaching and learning, there are those students that sometimes are unable to come out of whatever shell they are in the front of others but with an online it also helps even the one-on-one where the student is able now to be just herself or himself and then be able also to ask any question that sometimes they don't feel comfortable with other people, with other students.

I Tell me more about the flexibility, you said.

P The flexibility, it helps in the sense that, if I'm unable to come to campus, then I'll be able also to set up an online for whatever lesson that I was supposed to do as face to face in campus. So, it also helps that, for example, you are able to attend to other matters not in campus but be able also to continue with your lesson even if you are not in campus. So, it is not making you to be must be at the campus all the time. Whereas when you are in the campus you have to facilitate teaching and learning but that you can do it at anywhere, not necessarily that you must be in campus. So, I also like it for that as well, and also I like it for the fact that also you can still defer your content and then say, because I'm...for example, if you are also in the meeting, you can defer the content but still teach it online, still cover it online.

I And this one-on-one, face-to-face...sorry, the one-on-one, tell me or explain to me, you said the students open up to you when it's one on one.

P Yes. Students, for examples, with the one-on-one, you'll find also you can be online with that particular student. When you are in the class, there are students who cannot...I think it's personalities or whatever but those are students who are afraid to be opened up in front of the other students, but then when we are one on one, and the one-on-one online, it's either you are on the app or it's either you are using a WhatsApp where you explain whatever, it's when the student is able...is relaxed, not in front of other students, and is able to ask whatever she wants to ask and clarify whatever that she didn't understand. When you are in the class, a group of students, they are able to absorb the content or that particular discussion differently. Others they are fast learners, others they are slow learners, others are those who need to think about some of the things before then they can say I really understand one, two, three, and four. And it's when then you'll find that those students their levels are not the same. And sometimes even the time you've got with face to face it is restricted to a fact that you really want to run this content now, and those students who understand faster they grasp the concept at that particular time. And you're also rushing to the time that you are allocated. You'll find yourself also there are those students who are being left behind but they cannot say at that particular time that I'm left behind because others they already understood what you are talking about. So, the one-on-one it helps in that the student who does also self-introspection, who is able to say, ma'am, can we do an online? Can I contact you after hours? Can we do at this particular time? Can I set an appointment so we do one, two, three, and four? And at that times [sic], even if you are not in the campus, then you are able to set the time and the student will discuss whatever topic.

I So, you find if it's an online classroom now...you said with the one-on-one that they are more willing to be interactive, so with the online classroom do you find the same thing? If there's a lot of students, do you find even the students who wouldn't be interactive in a face-to-face they are more interactive in a classroom online?

P It's still the same. If they are in the group, let me say if you are right in...maybe you are in the Microsoft app and you are still having them, you still find those students, or some of them, they just...they've connected but they are not saying a thing, and you

still find the same people when they're in class are being interactive and all those things. So, if it's a group, then all of them they have to connect at that particular time and also being...you are running a lesson at that time. Still, I've realised that some of...for those also who are always quiet they're still...they are quiet.

I Still the same, they are quiet.

P [INDISTINCT – VOICE CLARITY – 00:10:15].

I How much of online methods are you using at that moment?

P At the moment, I've used Microsoft app, I've used Google Classroom, and I've used Google Forms for assessments of whatever content that we've been doing, which is also an online method, and also we do the WhatsApp because we do the WhatsApp calls and also we do WhatsApp voice notes.

[CROSSTALK]

I And is the institution doing anything to motivate you to use online methods?

P Not that much because...not that much. I think we were motivated at that time during the COVID time but after COVID we must be in class. We must be in class and...not that much, though we are familiar with those methods but not really. We are not that motivated with regards to that. It's upon an individual. I can just say it's upon an individual because even the timetables they are not giving that leeway. They are not giving the leeway of choosing that I'm choosing one, two, three, and four. You find yourself that I'll do online because maybe it's either I've got a social problem, I won't be in class at that particular time, then you'll just say I'll do online with the students afterhours.

I So, it's on the individual to choose when they want to do online.

P Yes.

I Has the institution done anything to capacitate teaching online?

P I think...mm-mm. It wasn't run by the institution but we have tried to...the members within our campus who are au fait with online, they've done in-service, so it means we're just in-servicing each other here within the campus with regards to online.

And then there have been those where we have been asked that we have to connect to them also that we are talking online. But with the nursing education institution, the higher one, I do not remember that. Because even during the COVID time, we fiddled ourselves to what we must do. We fiddled to what we must really do.

I So, I know you're teaching online, so you are prepared to teach online. The resources, do you have the resources to teach?

P Yes, we do have resources to teach, though they are not sufficient. We do have tablets, also they are not for everyone, they are not sufficient. And the laptops, we do have laptops but they do not connect to internet. Usually we are using our own resources.

I You're using your own resources?

P Yes, we use our own resource because mostly if then you need to be online, it means you are not at the campus.

I So, you go home and you use your own resources?

P Yes. So, we use our own resources.

I What resources is [sic] that?

P We do have...what is this? What is this data? The modem. We do have a modem for data, the wi-fi, the small wi-fi, we do have that one. We can take that one, also use it at home, but then at home you use your own computer or you use your own cell phone, your smartphone, that you are using. Sometimes also if also that data is depleted, then you have to use your own wi-fi.

I How do you feel about that?

P That is the part that really it is a bit sore. It is unfair. By right, we're supposed to be supplied, but maybe because we are not yet firm with online but maybe once then we've got all those resources that you are able then to do it completely. But it is unfair because if then I do not have wi-fi at home, my wi-fi at home, then it means I'm going to use the data on my cell phone, and that is where also you find that if then data is depleted then it is depleted, even if you haven't finished. Same also with the students.

The students as well, they do have data but if then it is depleted then it is depleted with the time.

I Can you think of any...I know you said a lot of disadvantages of online education. Any disadvantages you can think of?

P A disadvantage online, I think it's time. It is the time that you are doing that online. If it's afterhours, obviously not all students will be available because that is afterhours. So, they'll only avail themselves if then also they've got a feeling that they really need that, if it's already afterhours. You know students, also they've got their own [INDISTINCT – VOICE CLARITY – 00:16:39] afterhours is my me-time. So, it depends on that. Then also it depends also how long your online will be and also whether you've got resources. And mostly students they usually say, ma'am, we've been on, the data is being depleted, we are...and others will already say a person is out, data is depleted. So, those are disadvantages. And another thing, some of the students, they like face to face because they want to ask you directly and do explain directly, to be able to read you in all the angles and all how also...to read your face and read how you are expressing that. Others they want that, they like that. And even if they ask you, they just want you...they like you to answer them in person and they're reading your languages when we are also [INDISTINCT – VOICE CLARITY – 00:17:38]. I think that is also one of that. And also, the disadvantage, some things, electronic things, they can disappoint you at any time, even if you have planned. So, that is another thing, even if you have planned. Because even if we are here, sometimes...for example, maybe you are just going to do [INDISTINCT – VOICE CLARITY] or during that lesson, sometimes you'll find that the gadget they just fail you and you're already in class and you cannot now say let me go and change because time is going and I'm losing that period.

I Do you think there is a need for it?

P Yes.

I If there's traditional classroom there, is there a need now for online education?

P Online education?

I Mm.

P Yes. There is a need for it.

I Does it suit the practical component of nursing?

P Nah. As online?

I Ja.

P No. The practical part, no. The practical part it has been just been thought of on how we thought of it, on how to run it, of which we said the simple thing is for example it's either you take a video of yourself while you are doing that particular procedure and explain, but then who's going to take a video of you and then how are you going to upload that video? So, all those things they become a problem. And even if we want to use the online videos, unfortunately the health department, KZN Health, has locked our resources with regards to online videos, so you can't even teach using that.

I What do you mean?

P If you go to YouTube, it says you can't access that, so the accessibility is a problem.

I You mean the Department of Health has videos that can normally be accessed?

P No. The YouTube. No, we've got YouTube where –

I Oh, you mean on your intranet.

P Yes, in my intranet. With my intranet, I go in using the government gadgets. You can't –

I You can't watch YouTube.

P You can't watch YouTube. So, you have to use your own gadget to watch that. So, students, that is where also sometimes...because sometimes some of the things, you'll find them, they are nicely run in your YouTube in your gadgets and you say if I can just give this to the student if is well-explained and it shows exactly what is happening. But the problem is you can't even go to class and plug it in and say let us watch this thing because it's blocked.

I Anything else you wanna tell me? Anything else you can think of regarding online education?

P Advantages, disadvantages, why we must have it. Yes. The why we must have it, we have to have it...we are under CHE and with CHE it's more of online activities. So, we really need to align ourselves with other institutions that are under CHE so that also we meet the standard of CHE. And as much as, for example, we do say students mustn't be staying in class for so long, then how do we then facilitate the rest of the content that we want students to do? Then online learning we need that. And I'm not sure about...I think we are still [INDISTINCT – VOICE CLARITY – 00:22:13] baby steps with regards to assessments, the formal assessments, because the ones that I use with Google Form is just testing the understanding of that content, not really a nurse's mind, it's just the testing whether they understand it [INDISTINCT – VOICE CLARITY].

I What do you think about the honesty, the honesty and online assessments?

P The honesty on online assessments, what I've heard with other institutions, they said they've got an invigilator, they've got an online invigilator when they are doing those assessments. So, I think...but also...I don't know. I think when we are doing online assessments, we must be prepared for any mishaps that happen. Because when I also communicated with other universities with regards online and the students who have been subjected to online assessments, it becomes so difficult in such a way that they ended up having to start so many times, to start the assessment so many times, and then it will be different objectives that are assessed for that assessment. For example, if it happens that you disconnect, obviously you are not going back to the same paper, you have to start afresh another paper. So, for us, it means we must have a lot of papers that are set for cases like that. That is where it really needs a lot of work because if you are setting the assessment so it means you must set a lot. [INDISTINCT – VOICE CLARITY – 00:24:05] setting for the main exam and a supplementary, or supplementary goes together with the special exam, so which means it will be...I don't know.

I Thank you so much for participating in the interview.

P Thank you so much also to involve me. It is a nice –

I It's a nice –

[CROSSTALK – 00:25:38]

P ...conversation's a nice one and I hope really we get to that [INDISTINCT – VOICE CLARITY].

I Thank you.

--- END OF AUDIO ---

INTERVIEW 2

I Good morning, ma'am. As you know, I am Saviten Govender. I'm conducting research and you know that my topic is the perceptions of nurse educators towards online education in the KwaZulu Natal province. I'm being supervised by Dr Matlhaba and I am conducting this research via UNISA. Thank you for participating and thank you for signing the consent. And I think as you know now that this research...or this interview would last...can be up to an hour. I'd like for you to feel comfortable and think of it as something informal and as if though we're just having a conversation. So, what do you understand by the concept or the term online education?

P For me, online education...from my experience as a student or from my experience as a nurse educator? Because my experience as a student was different to what I experience as a nurse educator. As a student, I felt that I knew I was gonna have online education and I was prepared for the platforms, so I had been for things like Moodle training, but when I had to undertake online teaching and learning as an educator, because it happened during COVID time, I just had to use whatever platform was available to me. Obviously, it means I need to use technology, basic online technology, internet, [INDISTINCT – VOICE CLARITY – 00:02:04] technology, to undertake teaching and learning for my students. So, I used platforms such as Google Classroom, I used e-mail, even SMSes I had to send to the students, and WhatsApp.

That was what was available to me at that time. I knew that these are the platforms my students have access to and that's what I had to basically utilise. Some things I had to train my students to use, like Google Classroom.

I So, you spoke about COVID and you were using it during COVID. Did you also use it...sorry?

P Yes, that's true.

I Did you also use it before COVID?

P Not as a lecturer. Prior to COVID, I had only undertaken mostly face-to-face lectures. Even assignments, I would give my students assignment in hardcopies, a written form that this is what is required of them, and they would also send it to me in hardcopies, for instance. So, everything was very paper-based prior to COVID.

I So, you're saying that during COVID it became more intensified in the online –

P Much more intensified.

I After COVID?

P After COVID, I must say that...during the first lockdown, I had to utilise it under duress, I was basically forced to do some work, if I could put it that way, because the students were at home, we are lecturers, we're getting paid, we had to undertake work. During the third wave, that was last year July, I had a site block on, and because I had a site block on, it was during the third wave, teaching was also suspended, that entire block I did online, but because I had previous experience from the first lockdown I must say it was much more co-ordinated, students knew what to expect, so that went much better. So, even when teaching opened, because our students in cycle were placed in various areas, for instance I'll have students in Town Hill and I'll have students who are here in Durban, if we had to have a [INDISTINCT – VOICE CLARITY – 00:04:40] for instance I did use online, Google Classroom, but that was just taking note of an area where I could see this student...it wasn't during block per se, I could see that the students didn't quite understand this concept, so I would inform them that on such-and-such a date, please have your tablets with you and we're going to discuss such-and-

such a topic, to prepare them, to give them greater insight. So, I would say I did use it, not because of lockdown restrictions, because my students were in different places.

I So, how do you perceive online education being implemented at the institution?

P I would think it will need a lot of planning. The first time it was implemented, I felt like I hated working from home. I would have preferred being in the campus because there was more structure. I can say to you it was a nightmare for me to do teaching from home because it was sort of a haphazard approach until we as lecturers said...[INDISTINCT – VOICE CLARITY – 00:05:58] lecturer at that time. We decided amongst ourselves let's divide the work, because it was a...everybody was expected to work. So, we were all just giving the students work and the students weren't doing all our work, and we were not able to give feedback to say this is the work that was covered, and we realised it because we were all bombarding the students with work because we were all expected to work. So, obviously from that now we had learnt that we need to have a plan. We can't all be on the online platforms. You need to have a theme that you're working with and then the students complete that theme, utilise whatever strategies you want the students to utilise, you give them time to read, then you give them activities, and then you give them feedback, and another person would give them time. So, the second round worked much better. So, I would say planning is very important. Planning is important in terms of just to say this is how it would [INDISTINCT – VOICE CLARITY – 00:07:07], just like you have a timetable.

I You said you hated working from home.

P Yes, I hated working from home.

I Explain why and...

P Because of the various roles I had to play. I had to be a lecturer at home...I used my own resources, number one. I had to use my own resources, my own laptop, my own phones, my own data. Fortunately I have wi-fi at home. And I've got three children. I had to make sure that I'm supervising my three children, the schools were also giving their work, and I had limited resources. So, who do I allow to use my laptop? Because I've got one laptop, my daughter has her own laptop, so we've got two laptops in the house, four people need to do online. So, what happened to me is that I used to

get up very early in the morning, like five o'clock in the morning, to make sure that I can do my work, and then I'd give my children a chance to use the IT devices, and also obviously I had to supervise them because they're children, it's also their first time. So, for me, that was a nightmare. And then also for reporting structures it became quite an issue for me because I wasn't reporting only to the...I was teaching across disciplines for instance. I'm a general nursing science lecturer, I've gotta make sure I give students work there, give a report on that, and I was teaching anatomy and physiology online, so I had to also be giving reports there. So, I found myself reporting to four people and it was as if...I'd give a report to the person that I know is my designated supervisor at work but I find three other people asking me for a report. But obviously they had a vested interest. For instance, I had a group tutor, so maybe that's why they're asking me what happened with my group. So, I eventually found a method now of having just to send an e-mail to everybody that's concerned, even the other lecturer I was working with so that she could see that Mrs Fynn has covered this area and then the other area has to be covered by her.

I With regards to using your own resources, how do you feel about that and where would you expect it to come from, if [INDISTINCT – VOICE CLARITY – 00:09:30]?

P I would have liked at least strategic planning. For instance, if you know these people are key people. For instance, I know that certain students, for instance, were not...certain modules were not being taught, so I know that person may not need support per se. I was in a situation where I was slap-bang in the middle of two modules and I would say about three or four key people really needed resources. So, I feel that the campus could have prioritised resources.

I What type of resources?

P Just like laptop, because as I said I've got my own wi-fi at home, so that wouldn't be a problem. Just as long as I had a laptop. And also for storage of the information because afterwards I need evidence that I have undertaken. So, if it's stored on my devices, my device...I had a form that I used for one year, because it was overloaded I had to change the form exactly the next year because it just became very slow. So, I would have at least appreciated a laptop.

I I know you said that it was rough during that COVID period and you were implementing the online education, and you elaborated on there being no structure basically when you...but do you think, going forward, online education will be useful to you and how do you think it will be useful.

P It would be useful to me. I must say, going back now, I don't think management was deliberately...it was haphazard, it was a deliberate thing. What I do realise, even after I came back to the campus, was that a lot of lecturers, nurse educators, have got basic skills in IT. So, it was a thing of do what you can. If you've got those skills in that area, utilise those skills. So, even afterwards we had to assist each other, even with setting up online meetings, because you're familiar, you know how to create a Teams account or...we had to share our expertise like that.

I But how do you think it will be useful to you if you have to implement online education and teaching?

P For me, I...because of my experience, I found that...because the younger generation does like IT, I found that –

[INTERRUPTION – 00:12:12 – 00:12:25]

P I found that the students do enjoy learning with gadgets, so I found it piques their interest. I would say I'd have to find a way of making sure that they do do the work. So, what I did was I met...what I did do, I would send students work to do and I...for instance, on a Monday, and then on a Thursday I would tell them read these areas...for instance, in anatomy I did that. Read these areas, and I sent them work. I refer them to...I gave them simplified notes as well, my own simplified notes. But on a Thursday I would give them only multiple choice questions because I know you have to read to be able to answer multiple choice questions. Well-structured multiple choice questions on a Thursday that they know they're gonna submit on a Friday. So, that was my strategy to make sure that students engaged with the work. So, I do believe it would be valuable, provided that you do have strategies in place to make sure that the students are actually learning.

I How would it be useful or how would it be of maybe let's say your own personal or social benefit?

P Personal and social benefit? For online teaching and learning?

I Mm.

P For my own personal benefit, I would say it would benefit me as a...it may give me a bit of more flexibility, give me a bit of more flexibility in terms of planning my teaching and learning, provided that we negotiate with the students to teach in time. I'm more of a day person, an early person, [INDISTINCT – VOICE CLARITY – 00:14:27] students are not available for early sessions, that that could be a thing. But I do say the flexibility would be marvellous for me as an educator.

I Elaborate on that flexibility, what do you mean by flexibility?

P I would say at least I know that I've got time in the day to attend to other things that I need mainly to attend to, like other areas, preparing other lecturers that I may need to attend to. The only thing that I didn't quite like is the students that submitted work late, that you've got a deadline...and they did have data problems. And because you have to submit a report, there was a time when I just sent the student data myself so the student can send me their work and I can submit my report. So, it's quite along process. A lot of stakeholders are involved. So, if we all keep to what is required of us in that way, it would work out.

I So, what are your intentions, going forward, in the use of online methods?

P How must I put it? I would love to use more online [INDISTINCT – VOICE CLARITY – 00:15:50] , blended I would say, blended, because being a nurse I do feel that there are times when I have to be face to face with the students so that I can see...gauge for myself where they are lacking. I think basically I just have to make room for online. There's no way we're turning back. COVID just happened to...it was like a rude awakening, so to speak. I do believe there's no turning back, but I don't know if we have adequate support. As I said, we had to basically teach each other, and I don't know if we have adequate resources. We have so many budgetary constraints. I believe we need a dedicated person so that, when I need to go online and my computer is giving me glitches, I've got someone to come and assist me. So, we've had to play that role for each other, that if so-and-so is having a meeting and they can't log in, someone else has to come and try...as a lecturer now, come and

try...attend to the problem. So, that for me is quite a thing. So, I would day we could use online, and we are definitely going to use online, and...but I don't know if...we have to first put a lot of resources into it before it can be something that we can say this is really it.

I You said support? You said IT support?

P IT support.

I Any other support you think of?

P I would think everybody does need training, they all do their training on basically how to use IT and how to use...there's new apps coming out all the time. There's Teams, there's...I use Google Meets and to be honest...I use Google Meet.

I Meet.

P Because Zoom cuts you out in an hour. Google Meet I can go at least one and a half hours. So, what I did was I would send my students that did work the day before, give them an idea that this is what we are going to do, so that I could go over that work in that one and a half hours, give them a break, and then the second lecturer would come online.

I So, you spoke about training. Has your institution done anything for you in terms of training?

P I must say that we have had opportunities from FUNDISA. FUNDISA has done a lot of online preparation for us. Coming back now to resources, because it's been online, the platforms that they've utilised are platforms that we couldn't really...for instance, I have a tablet now, from last year, because I'm an HOD, I've been provided with a tablet. Not everyone has a tablet. I share it with my team members. So, I get a link, I can see the picture, but I can't hear anything. So, there have been opportunities but they have not been the best opportunities, that's what I'm saying.

I As opposed to other disciplines, do you think online education is suited to nursing education?

P To a certain degree, yes it is, because nursing does have theory. And you must remember, online...although I haven't used online per se, you can use various methods like videos, I've used videos in class for instance. But it means you must plan your work well if you're gonna use...get something good for the students [INDISTINCT – VOICE CLARITY – 00:19:42] only be slides. You have to use various methods and you also have to make the students engage because some of them log on and...obviously you have to switch off your camera because of using too much data and it interferes with the signal. So, you don't...your student can be logged on but you don't know if they're present. So, I feel that you really need to use various strategies, engagement strategies, to be able to make it useful for the student.

I Specifically for nursing education?

P For nursing education, ja. But as I said, to a certain degree. I don't know how you'll make it...balance it out to say this is enough online and then we need to now have face to face.

I So, comparing online education now to the traditional classroom, do you think...what would be the benefits or the disadvantages?

P As I've said, with online you can have a student logging on but being absent.

I That's a disadvantage.

P They're not...that's a disadvantage. They may not be engaging per se. Whereas when it's face to face you can see that this student is daydreaming or if that student has a problem, they need to attend to something. So, you can negotiate conditions like that where you ask the student to...or you engage the student because you see now they're becoming bored, let me change my strategy. You don't have that advantage online.

I Do you think that traditional classroom with suffice or is there really a need for online education?

P I think you need to utilise both. In terms of...let's just talk about staffing for instance. If you look at the trend in staffing, there may be times when...the [INDISTINCT – VOICE CLARITY – 00:22:00] work is still under Department of Health,

where you find that there's [INDISTINCT – VOICE CLARITY] in a certain campus. Even if they've got staff...for instance, we had COVID, people were maybe occupying posts but couldn't do the work if they were ill for instance. So, I think in that way it may help, that you can have an online session and engage more than your own students, a wider platform of students. Although I don't know how you're gonna ensure accountability in terms of...if I'm the A&P lecturer, I'm teaching...I know in my campus I'm gonna answer for the results. So, if I'm also teaching in another campus, I may just do the work to get it done, just to say it has been done. If I don't know the students personally, the people in that campus...I'm accountable for that.

I In terms of the infrastructure, do you think infrastructure is in place to implement online education?

P No, I don't think infrastructure is in place and I must say that it's not something that we've just closed our eyes to as staff members. Everybody has mentioned it, that we need a lot of support, not only computers per se. We also need an internet; proper, reliable internet. And you must remember, our students come from diverse backgrounds. I must say though we have provided...Department of Health has provided tablets with data for the students, which is a great help. It really, really has been a great help. That made work so much easier and because the department provided it you knew student couldn't give you stories, they had to deliver with it was time to deliver. But as I said, it's not only material resources that we need. We also need skills, people with skills.

I So, are you prepared to teach online?

P I am prepared to teach online. I will do it here from work, not from home, because from home...I got the impression that people thought I was just sleeping at home and not doing any work. So, I will come and do it here so that you can see that I'm doing my work, because I felt like far more was required of me to incorporate as compared to when I'm here.

I I actually enjoyed being at home and doing my work.

P I didn't like it at all. I was getting...what happened also, students...because data is cheaper at night, you'd find you're getting work three o'clock in the morning. After

twelve, your phone is going off, and then you had to put two and two together, it's because of data being cheaper.

I I know you said lecturing COVID...or lecturers assist each other in terms of learning how to use different platforms and all of that. Anything else that you have done to prepare yourself to teach online?

P I actually did. I learnt to use Google Classroom. My daughter was at one of the model-C girls' schools here in Durban. I asked her to teach me [INDISTINCT – VOICE CLARITY – 00:25:29] she's got more experience. She showed me, mum, this is how Google Classroom works, can you see the dates? They tell you in advance that you're gonna have this lecture on this day. So, that's how I learnt.

I And for me, I feel like the younger ones, they don't need all this help. It comes naturally for them to learn.

P Yes.

I They can just pick up from anywhere and just continue doing what they have to do on that platform. But we need that assistance from somebody to do it.

P So, I learnt from my own daughter. So, I did a trial with her because I didn't want to have a delay with my students. So, I did a trial with her where I would set up, send her a link and the time, and then when we logged on we wanted to check how clear it was, etcetera.

I Anything else that your employer has done to capacitate you or to teach online, or has there been any more sort of motivation, anything like that, to teach online?

P They have provided each discipline a tablet so that we have one tablet for our discipline. So, if another lecturer is doing online, I would give them that tablet. Although I must say that is also like...I'm the caretaker of that tablet. We had an incident where the tablet is not working. Why? It's been switched off, kept safely in the safe. It hasn't been updated. Now when you need it, it [INDISTINCT – VOICE CLARITY – 00:27:00]. It's giving you glitches. So, obviously now that...because I know my discipline must run, I take the tablet home, I update it on my own wi-fi. I take it home at least twice a month. So, those are the resources. And then, as I said, when it comes to the how to

incorporate it, it's mostly been from FUNDISA, the workshops have been from FUNDISA.

I Thank you very much. I'm not sure if I mentioned this but I know you have read this document, giving you all the details of the research, but your name will not be mentioned anywhere in the research.

P Thank you.

I You're guaranteed of anonymity. And all the information will be kept confidential. Thank you very much.

P Thank you.

--- END OF AUDIO ---