

SUMMATIVE ASSESSMENT TASK

Exploring undergraduate students' experiences of online learning management systems as a result of COVID-19

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Abstract

This research aimed to investigate the use of online learning platforms by undergraduate students because of COVID-19 epidemic. Qualitative interviews with four undergraduate students who were currently enrolled in different higher education institutions and had gone through the transition to online learning because of the epidemic were used to gather data. To study the data and find new themes and patterns, thematic analysis was used.

The study's findings showed that taking online courses during the COVID-19 epidemic had several advantages for undergraduate students. The ability to organise their time more efficiently and strike a balance between personal and academic duties emerged as a key benefit. Online learning's advantages include the ease of remotely accessing course materials and the reduction of commute time. Additionally, the accessibility of online learning environments gave students the chance to participate in educational activities at their own pace and from any place with an internet connection.

However, the study also made clear the difficulties that undergraduate students had while using online learning environments. Participants said they had trouble connecting to the online systems due to technical problems and unreliable internet connections, which made it difficult for them to fully participate in the virtual classes. Moreover, when face-to-face contacts were supplanted by digital communication tools, a feeling of alienation from peers was frequently mentioned. There were less possibilities for group discussions and collaborative learning experiences because there weren't any in-person group activities.

The implications of these findings emphasise the need of removing technical obstacles and enhancing the online learning infrastructure to provide undergraduate students with a seamless and inclusive learning environment. Institutions must think about offering technical assistance and resources to improve connectivity and handle problems with gaining access to online platforms. Through creative online learning techniques, efforts should also be made to encourage social interaction and build a feeling of community among students.

This study adds to the expanding body of knowledge about the COVID-19 pandemic's effects on higher education and emphasises the need of online learning platforms for maintaining access to education in emergency situations. The knowledge gathered from this study can help academic institutions create efficient online learning environments and support systems that meet the various demands of undergraduate students. Further research is recommended to explore other aspects of online learning experiences and its long-term consequences on academic achievement and student wellbeing.

Introduction

COVID-19 was pronounced as a worldwide pandemic in March 2020 (WHO, 2020). It affected various environments including teaching and learning. It prompted the closure of schools and colleges and this closure put a significant weight on the schooling system to adapt to the unusual shift from traditional to online learning (Di Vaio *et al.*, 2020). When COVID-19 hit, South Africa had to find ways in which teaching, and learning was to be carried out without disturbing and disrupting the academic year. Many organisations all around the world were compelled by the COVID-19 epidemic to fully utilise a range of cutting-edge online communication platform technologies.

According to Al-Kumaim, Alhazmi, Mohammed, Gazem, Shabbir, Fazea (2021) universities are among the organisations that requested that students and lecturers use a variety of online communication tools to maintain the integrity of the educational process. South Africa as a third world country had a challenge as access to the internet and hardware is a problem for most families who mainly live from hand to mouth. Online education presented several challenges for students and educators (Chandrasiri and Weerakoon, 2021).

According to Faturoti (2022) COVID-19 forced the shift to web-based learning, yet a few colleges in third world countries were not sufficiently prepared to educate online productively. Another significant deterrent is the internet availability for underprivileged students (Di Vaio *et al.*, 2020). It is true that contact classes are more proficient than online classes and the total shift to online during COVID-19

makes it important to research the students' experiences of the sudden and immediate implementation of online learning systems during that time.

According to Chandrasiri and Weerakoon (2021) teaching and learning online has a wide scope of benefits and has presented a few difficulties. These difficulties leave an effect on the students' characters and keep them from proceeding. The South African Higher Education context, has had a dire need to move from physical to online classes where the mandate to move along access at undergraduate level while addressing the need to teach the country, has been uncertain with the number of difficulties for educators, (du Plessis, Jansen van Vuuren, Simons, Frantz, Roman, and Andipatin, 2022).

E-learning is defined as using online platform technologies and the Internet to enhance learning and provide users with access to online services (Ehlers and Pawlowski, 2006) and online learning has become a part of the 21st century as it makes use of online platforms for teaching.

This study explores the usage of online learning systems post COVID-19 and the reception of these technologies by students. The study's central question is how students received these technologies within the classroom.

Research Problem

Research context

Hancock (2002) states that the implementation of and reception of online and the use of technology in the classroom was accepted by the world in the break of COVID-19 even though for some countries, online learning had never been used as part of daily teaching and learning. The education system across the world was impacted because of COVID-19-19; it constrained the shutdown of educational institutions, which unfavourably impacted the students' fraternity across the globe. Because of its infectious nature, COVID-19-19 requested regulation and authorized disengagement that immensely impacted communication of educators and students (Chandrasiri and Weerakoon, 2021). In the absence of traditional teaching and

coordinated collaboration, online learning has arisen as the nearest substitute for disconnected learning. It is against this background that it is relevant to analyse the students' experiences of online education utilized at higher education institutions during the continuous COVID-19-19 pandemic.

Problem statement

COVID-19 epidemic transformed how we live and study in 2020, education is still seen as a fundamental human right. It was inevitable that first-time students would approach learning considerably differently from their predecessors. Stats SA (2022) suggests that the adoption of the severe lockdown regulations had an impact on about 2,3 million students who were enrolled in higher education institutions. Although lockdowns were implemented in every nation on earth, the internet and other digital tools became crucial for maintaining touch with the outside world (du Plessis, et al., 2022).

According to Hodges, Moore, Lockee, Trust, and Bond (2020) Numerous challenges, including the skills gap, inadequate planning and preparation for digital delivery, and the appropriateness of online platforms, prevented many schools from moving suddenly into the virtual world. Faturoti (2022) indicates that the world had to act swiftly and utilize distant learning because of the coronavirus. Some courses are available online, however not everyone is fortunate enough to have access to a computer or the internet. There is unequal access to data and connection, as well as to the technology utilized in online education (Faturoti, 2022).

Therefore, this study evaluates the undergraduates' students' experiences of the usage of online learning systems because of COVID-19. Understanding their experiences will improve further roll out of online learning and inform future usage improvements avoiding the barriers associated with the implementation of LMS.

Main research question:

What are the perceptions of undergraduate students in Johannesburg (JHB) regarding the usage of Learning Management Systems (LMS) in higher education institutions because of COVID-19?

Sub-questions:

1. What are the students' attitudes towards LMS in the classroom?
2. What are the benefits of using LMS in the classroom?
3. What are the challenges of using LMS in the classroom?

Literature Review**Introduction**

The COVID-19 epidemic has transformed the higher education environment and forced institutions of higher learning all over the world to quickly switch to online learning modes. Learning management systems (LMS) are among the crucial instruments used in this process. The purpose of this literature review is to look at and assess undergraduate students' interactions with online LMS systems during the COVID-19 period. This review aims to obtain insights into the various facets of students' contacts, including advantages and disadvantages, challenges, by looking at a various of scholarly sources. In the end, this study will help us gain a thorough understanding of how online learning management systems (LMS) affect undergraduate education, which will help educators and institutions improve the virtual learning environment both during and after crises.

Online learning

Online e-learning is utilizing different electronic gadgets (for example PCs, PCs, cell phones, tablets) with web accessibility to substitute the traditional ways of learning. Online e-learning is seen as a platform that makes education learner focused as opposed to the teacher focused traditional methods of teaching (Nikou and Maslov, 2021).

Almost all institutions of higher learning utilise various innovative approaches like Google Classroom, Zoom, and Microsoft Teams and other institution specific learner management systems to take online courses, although not exclusively to finish the course but an addition to remain in consistent contact with the students (Almaiah, Al-Khasawneh and Althunibat, 2020).

According to Nikou and Maslov (2021) the remarkable development of digital innovations has grown at a good rate. the usage of these innovations has affected the social norms in general and positively changed how individuals work, play, and learn (Nikou and Maslov, 2021).

For educational purposes, these innovations are utilized by students and lecturers to advance education and student experience within the classroom. Conventional students have become so used to technology that they anticipate it as a norm and data innovation has altered the way educators instruct also, the way students learn (Almaiah et.al, 2020)

It is assumed that the introduction of new technologies within the classroom will inspire students to lead the conversation instead of the teacher being the one to direct the students (Almaiah, et.al, 2020). Inspiration is a fundamental element in learning, furthermore, it influences all fields of learning, fitting learningal strategies that motivate students bring about compelling learning (Kahveci, 2010).

The acceptance of these technologies could help facilitate the usage of these technologies during the pandemic as well as post pandemic circumstances (Dlalisa and Govender, 2020).

Online learning can possibly change the education system by growing instructive open doors, changing students' mindsets, and empowering the improvement of new educational strategies making the learning system more dependable, more productive, and less distressing for both lecturers and students (Venkatesh and Bala, 2008).

Advantages of online learning

According to Gautam (2020) In recent years, online learning in higher education has grown significantly in acceptance and demand. This kind of teaching has various benefits that contribute to its broad adoption and success, especially considering technological improvements and the expanding accessibility of the internet.

Flexibility is one of the main benefits of online learning. In contrast to conventional classroom environments, students can access course materials and lectures whenever it is most convenient for them. Individuals may manage their schooling with other duties like employment or family obligations thanks to this flexibility (Gautam, 2020). Additionally, it removes the need to commute to actual schools, saving both time and money.

According to Neisser (2020) the accessibility that online learning offers is another advantage. The dissolution of physical boundaries allows students from different geographical regions to enrol in courses offered by institutions globally. People who might not have access to high-quality education in their immediate area now have more opportunities. Furthermore, by offering specialised resources and tools to improve their learning experiences, online learning accommodates those with impairments (Neisser, 2020).

Hazari (2021) states that online education also promotes a personalised learning environment. The programme may be completed by each student at their own rate, with time for review and further help as necessary. This customised strategy promotes improved comprehension and information retention by considering diverse learning preferences and styles (Gautam, 2020).

Online platforms can also support collaborative learning, According to Emeritus (2022) students have the chance to communicate and participate with their classmates through discussion boards, virtual classes, and group projects, building a feeling of community despite physical distance. Such group projects strengthen the communication, critical thinking, and problem-solving abilities that are so important in today's linked society (Emeritus, 2022).

Disadvantages of online learning

As there are advantages there are disadvantages to of online education, for example, internet connectivity issues, PC similarity, or hardware issues (Gautam, 2020).

Toward the start of the COVID-19 pandemic, students needed to revamp their day-to-day timetable to adjust to a circumstance of isolation (social distancing). According to Tamm (2023) The absence of socialization impacted students. Students are not propelled to learn if they do not have adequate knowledge of the technology used.

Higher education institutions have seen a considerable increase in the popularity of online learning, which gives students the convenience and flexibility to achieve their academic objectives. It's crucial to note, though, that there are several disadvantages to online education as well (Edly, 2021). The following are some significant limitations of online education in colleges and universities:

According to Emeritus (2022) Lack of face-to-face interaction, the inability to engage with students and lecturers in person is one of the main downsides of online learning. This may limit networking possibilities, hamper the growth of social skills, and make students feel isolated. It might be difficult for students to participate fully in their studies when there is a lack of instant feedback and ties to the community.

Another disadvantage is limited hands-on practical experience to obtain the requisite abilities, several fields, like science, engineering, and healthcare, require hands-on practical experience (Tamm, 2023). Online courses may have trouble giving students enough lab time, fieldwork, or internships, which leaves a void in their practical training (Mukhtar, Javed, Arooj and Sethi, 2020)

According to Mukhtar et.al, (2020) Technical challenges can interfere with online learning, which mainly relies on technology and has infrastructure requirements. There are disparities in students' access to dependable computers, internet connections, and other equipment, which discourages engagement. During

exams or lectures, technical issues or system breakdowns can be frustrating and impair learning (Mukhtar et.al, 2020.).

According to Tamm (2023) online learning necessitates a high degree of discipline and accountability. Some students could find it difficult to manage their time properly without the regimented timetable of a typical classroom, which could result in procrastination and lower productivity. Some students may find it simpler to fall behind or ignore their schoolwork when there is no direct supervision because there will be no one holding them accountable (Tamm, 2023).

According to Emeritus (2022) limited options for social and cultural interaction that university life offers students which is beneficial for personal development and a sense of belonging. These contacts are limited by online learning, which makes it challenging for students to create a variety of social networks, take part in extracurricular activities, or have in-person discussions that encourage critical thinking and teamwork (Emeritus, 2022).

Learning Management System in higher education

Learning Management System popularly known as Moodle in South African higher education institutions have merged into the fabric of higher education institutions all over the world (*Gamede, Ajani, Afolabi, 2022*). These online learning environments offer a central location for all the required readings, assignments, conversations, and tests to improve the learning process. Due to the quick development of technology, LMS have adapted to meet the various requirements of both lecturers and students (Khalaf, Abdel Azim, Elkhateeb, Shahin and Taloba 2022).

LMS in higher education offers a practical and open method of distributing course content. There is no need for physical handouts because students have access to lecture notes, slides, and other materials anytime, anyplace, enabling asynchronous learning (Alokuk,2018). This flexibility is especially beneficial for students who have demanding schedules or are seeking remote learning.

According to Edly (2021) One of the finest aspects of learning management systems is that they are convenient and efficient, these platforms turn into a centralised platform with all the required course materials. The learning process for all students is streamlined by having a single, well-managed database. From a single site, students may post coursework and take tests. Additionally, it is handy for the teachers to be able to share materials with every student by simply uploading them to the LMS. (Edly, 2021).

Chaubey and Bhattacharaya (2015) states that the capacity of LMS to monitor and assess student performance is another important benefit. Lecturers may keep tabs on pupils' development, spot areas of weakness, and adjust their teaching methods accordingly. This data-driven methodology enables personalised interventions, guaranteeing that every student gets the help they require to succeed (Chaubey and Bhattacharaya, 2015).

To improve the learning experience, LMS frequently incorporates numerous multimedia tools and interactive features, such as movies, simulations, and gamified aspects. These interesting materials can support greater comprehension and encourage active learning while accommodating various learning preferences (Lopes, 2014).

According to Lopes (2014) LMS is a digital platform that improves accessibility, communication, collaboration, and personalised learning has been made possible by learning management systems, which have transformed higher education. LMS will probably develop more as technology advances, providing even more cutting-edge and successful teaching and learning experiences in the future.

Learning Management Systems usage during COVID-19

Learning Management Systems (LMS) were crucial resources for educational institutions, companies, and organisations all around the world during the COVID-19 epidemic (Habibi, Yaakob and Al-Adwan, 2023). The worldwide health crisis created an unprecedented amount of interruption to education, yet LMS systems enabled remote learning and guaranteed continuity.

LMS platforms took over as the main method of imparting education once physical classrooms were closed and social distance measures were implemented (Guo and Lee, 2023). These methods made it possible for educational institutions to switch effortlessly to online learning. Lecturers may set up online classrooms, add resources, and deliver live or recorded lessons. On the other side, students might use the LMS to access course materials, turn in assignments, and participate in conversations. Even in the absence of face-to-face contacts, the educational needs of the pupils were addressed thanks to this remote learning strategy (Alokluk, 2018).

Additionally, learning management systems were essential in ensuring that enterprises and organisations continued to get professional development and training (Guo and Lee, 2023). Companies immediately embraced LMS platforms to provide remote employee training, ensuring that new skills are acquired and that current ones are maintained (Alturki and Aldraiweesh, 2021). By facilitating effective information transfer through virtual classrooms, webinars, and interactive modules, firms were able to adjust and prosper in the face of shifting conditions.

During the epidemic, LMS platforms also offered several benefits. They provided flexibility, allowing students to access the course contents at their own leisure and speed (Gautam, 2020). This flexibility was especially useful for those who were seeking education or training while juggling employment, family, and other commitments. LMS systems also provided the chance for personalised learning encounters (Neisser, 2021).

Technology and digital literacy were also promoted via the use of LMS systems at COVID-19. To guarantee easy adoption and use of LMS platforms, educational institutions and organisations must make infrastructure investments and provide the required training (Alturki and Aldraiweesh, 2021). This focus on technology and digital skills will probably have long-lasting repercussions since people and organisations will likely continue to value technology integration in education and training even after the epidemic.

As a result of the COVID-19 epidemic, learning management systems have become a vital component of education and training (*Gamede, Ajani, Afolabi, 2022*). These systems allowed for seamless remote learning, guaranteed academic and professional development continuity, and offered adaptability and customised learning experiences. The epidemic brought to light not just the need of LMS platforms but also the necessity of digital literacy and technology integration in training and education. Lessons from the use of LMS platforms will continue to influence education and workplace learning as we navigate a post-pandemic world (*Dhawan, 2020*).

Research gap

There are currently few studies on perceptions of students on the LMS use in higher education during COVID-19. The current study proposes to address important variables associated with the undergraduate students' experiences of LMS usage as a result of COVID-19 in Johannesburg.

Paradigm

According to du Plooy-Cilliers, Davis and Bezuidenhout (2014) A paradigm is a set of shared beliefs among members of a specialty area (scholars) which determines how scholars view the phenomena in their community studies. And the research methods that should be employed to study those phenomena. They will guide how research should be done and how results should be interpreted. Paradigms can be referred to as worldviews or traditions.

There are three well-known philosophical research orientations that direct research methodologies and analysis, according to Kumatongo and Muzata (2021) and Ryan (2018). These orientations include positivist, interpretivist, and critical theory. According to the positivist paradigm, there are only one or a few possible interpretations of reality, which may be reached by scientific means (*Selvan 2017*).

Therefore, reality is unbiased. To provide explanations and make predictions based on measured results, the positivist paradigm concentrates on looking for cause and effect links in measurable things (*du Plooy-Celliers et.al, 2014*). This paradigm was inappropriate given the purpose of my study, which was to understand the dynamics of student teacher selection into teacher education.

According to du Plooy-Celliers *et.al* (2014) Positivism was birthed in 17th century, now known as the Age of Reason. positivity, where scholars believed that science would enlighten people and improve the world. Positivism theorists encouraged people to think for themselves and challenge social norms. It helped get rid of myths and superstition. Scholars believed that reality and human behavior can be understood through observation and reason. They studied causal relationships to predict and control nature of humans and animals alike.

The critical theory paradigm maintains that reality is made up of several points of view (Dammak 2020). The paradigm seeks to advance social justice and human liberty by putting a strong emphasis on these concepts (Dammak 2020). To bring about social change, this paradigm for social science research concentrates on power and inequality.

With the aid of this reflective, dialogic paradigm, the researcher and the participants can challenge the processes that maintain order as well as the notion of the "natural" state (Mukeredzi 2009). Critical realism was born as a response to both Positivism and Interpretivism. Critical realism views Positivism as narrow focused and non-humanistic as opposed to interpretivism as passive, contextual, subjective, relativist view.

Critical realists believe that researchers have a responsibility to expose and critique unjust practices in society (du Plooy-Celliers *et.al*,2014). Critical realists do not try to build a better world for people, but rather empower people to try build a better world for themselves. The critical paradigm was improper since my research focused on pre-service lecturers who entered teacher education programs.

For this study Interpretivist paradigm will be utilized. The interpretive worldview in research looks to find out about various societies, concentrating on their traditions, cultures, approaches to acting, politics and economy (Dudovskiy ,2002). It additionally attempts to figure out people similarly. Interpretivism, otherwise called interpretivist includes researchers to and interpret components of the study,

interpretivism introduces human interest into a study., "interpretive researchers believe that reality is a social construct (du Plooy-Celliers *et.al*,2014).

interpretivist theory was developed to counter the idea of positivism, this way of thinking defends qualitative over quantitative analysis. Interpretivism is associated with idealism, according to Dudovskiy (2002) interpretivist is used to group together diverse approaches, including social constructivism, phenomenology, and hermeneutics; approaches that reject the objectivist view that meaning resides within the world independently of consciousness" and is utilized to gather different methodologies, including social constructivism, phenomenology, and hermeneutics; moves toward that reject the objectivist view that significance lives inside the world freely of consciousness" (Dudovskiy, 2002).

Phenomenology is "the philosophical practice that tries to understand the world through experiencing the phenomena". Relativist ontology this approach sees reality as intersubjectively that depends on implications and understandings on friendly and experiential levels (Dean, 2018).

Conditional or subjectivist epistemology. As indicated by this methodology, individuals cannot be isolated from their insight; consequently, there is a reasonable connection between the analyst and exploration subject.

Therefore, an interpretative paradigm was used in this investigation. According to Alvermann and Mallozzi (2010), the interpretative method of analyzing social life is based on the premise that "the significance of human behavior is embedded in that action." In other words, their social existence is intrinsically shaped by human experiences.

Given that the interpretative paradigm is predicated on the notion that social reality is molded by human experience and social settings, it is best researched within its socio-historical context by balancing the varying participants' subjective judgments (Alvermann and Mallozzi, 2010). The social surroundings (cultural values and norms) of the lecturers' colleges in this study had an impact on participants' opinions, perceptions, and behaviors on student teacher selection.

According to Dean (2018) the social component of lived experiences, the interpretive paradigm is a research paradigm based on looking for meaning from multiple subjective points of view in the subjective data. This was the case in this study, where the various interpretations led to a deeper and better understanding of the phenomenon being studied. Dean (2018) describes the interpretivist paradigm as a contextual reflective approach that centralizes human meaning-making and knowledge claims. Therefore, the interpretative paradigm was a good choice for my research since it allowed me to better grasp phenomena from the participants' subjective points of view.

Contrary to the one unified universe of the positivist paradigm, reality, according to interpretivists, is multifaceted, subjective, relative, and socially produced (Pham, 2018). In my study, reality was seen and understood from numerous participants' points of views. Pham (2018) argues that interpretivists adhere to a relativist ontology in which a single phenomenon is capable of being understood in a variety of ways. Therefore, the social conceptions and actual experiences of the participants' admission to teacher training institutes served as reality. Thus, it was based on the participants' interpretations.

Research Methodology

The study design adopts a qualitative methodology, collecting and analysing rich, in-depth data using semi-structured interviews and thematic analysis. Four undergraduate students who have used online LMS throughout the epidemic were chosen using a purposive sample method. To maintain participant anonymity and informed consent, the study abides by ethical standards. The study methods described in this part provide a thorough comprehension of the students' experiences, providing important insights into the success and difficulties of implementing an online learning management system in higher education.

Research Design

To meet the objectives highlighted for the study, the researcher used interviews to examine the students' experiences of the use of LMS because of COVID-19.

According to Teheran, Martimianakis, Stenfors-Hayes, Wadhwa, and Varpio (2015), qualitative research is the methodical investigation of social phenomena in a natural environment. This is consistent with Denzin and Lincoln's (2005) claim that qualitative researchers investigate phenomena in their natural surroundings to understand them or interpret them in terms of the meaning's individuals give them.

Population and Sampling

The target population for this research was undergraduate (2nd and 3rd year) students at higher education institutions in Johannesburg. Brynard, Hanekom and Brynard (2014:57) describe the population as a group that possesses the characteristics that the researcher is interested in. The population parameters for the researcher were the participants had to be undergraduate students at a higher education institution of learning in Johannesburg, the students had experienced learning using LMS because of COVID-19 pandemic.

The researcher had access to the participants as the researcher works in higher education institution in Johannesburg. The students were accessible through a student who stays in a residence which accommodates students from various higher education institutions around Johannesburg.

According to du Plooy-Cilliers et.al (2014) non-probability sampling is employed when it is impossible to know who the complete population is or when accessing the full population is challenging. du Plooy-Cilliers et.al (2014) further states that non-probability sampling can be used when the researcher draws a sample that is in line with the characteristics of the research.

Purposive sampling, according to Yin (2011), is the process of choosing study participants based on the likelihood that they will have access to rich, pertinent data that may be utilised to address specific research topics. Based on their own experiences, the participants in the study have knowledge of LMS use in the classroom because of the COVID-19 pandemic. The researcher purposely selected the participants because they were undergraduate students (doing 2nd or 3rd year) at an education institution of higher learning, leaving in Johannesburg and had

experience using LMS because of COVID-19. In this case all the students that were interviewed were doing their 3rd year

Four participants were interviewed. For the scale of the research, the advantages of having a small sample size were that the researcher have in-depth interviews with each individual and the possibilities of identifying other themes not highlighted by literature. The disadvantage of having a small sample size is that the results cannot be generalised for other circumstances in different locations.

Data collection

Semi structured face to face and online interviews with students were used in this researcher to provide qualitative data. The availability and ease of access determined whether the interview will be face to face or online. This allowed flexibility, amongst participants and the researcher.

According to Creswell (2009), qualitative orientations rely on real-world techniques including focus group discussions, interviews, and observation that facilitate communication between the researcher and participants. Individual interviews with students were conducted by the researcher to enable purposeful sampling.

Interviews were conducted according to the participants availability based on the schedule sent by the researcher taking approximately 30 minutes. The schedule indicates dates in March 2023.

Data for the study was collected using interviews, the first step for the researcher is to identify the students eligible to participate in the study based on the parameters set by the researcher. The second stage the researcher will formally invite the students to participate in the study, follow up with the interview schedule where students can identify their availability and decide whether they will prefer to have the interview face to face or online. The researcher had the interviews with the participants over a period of one month (March 2023) accommodating exam period for the students.

Data analysis

Data analysis is the process of discovering what individuals believe, say, and do on the topic at hand and the motivations behind those viewpoints and actions (Cook and Farmer 2011:14). To identify certain topics of interest, content analysis will be used to examine the interview material. The purpose of content analysis is to make sense of the information gathered and to draw attention to the key points, details, or conclusions.

Cook and Farmer (2011:15) point out that knowing people's attitudes toward the topic under study as well as various viewpoints and behaviours is necessary for data analysis. After deciding on the thematic analysis approach, the researcher had to interact with the data by carefully examining the interviewees' responses.

The researcher will then have a better knowledge of how the students see the use of the LMS as a result. The researcher will do data analysis when the interviews are finished. The data that was gathered was coded to create categories and develop themes. The study's goals and the material it studied over its course were used to determine the themes. To demonstrate the authenticity and individuality of various students as well as how they perceive the use of LMS in the classroom because of COVID-19, the researcher will also highlight developing themes.

Findings

The purpose of this study was to investigate how students perceived the implementation of Learner Management Systems (LMS) because of the COVID-19 epidemic. The research provides insight into the attitudes, experiences, and challenges that students had when they switched to online learning environments. Each finding has been supported by literature.

Data for the study was obtained through interviews which helped to determine how students received the introduction to LMS because of COVID-19. The data analysis aims to answer the study objectives. This chapter reports the findings from students. The major research question of the study was 'how do undergraduate students In Johannesburg (JHB) perceive usage of LMS in higher education institutions?' the sub-questions were firstly what are the students' attitudes towards LMS in the

classroom? Secondly, what are the benefits of using LMS in the classroom? And thirdly what are the challenges of using LMS in the classroom? The researcher identified four students from higher education institutions in Jhb, who were introduced to LMS because of COVID-19.

COVID-19 caused widespread panic and anxiety; many people in higher education institutions had to turn to online learning platforms to continue their education. While learner management systems offer many benefits, they also have their challenges. Doing the interviews, the researcher had from the literature identified common themes associated with the implementation of LMS in higher education institutions and supporting the main question of the research, the following questions addressed.

Theme1: Students' attitudes towards LMS

Attitudes: The attitudes of people towards online learning platforms have changed dramatically since COVID-19. People are now more willing to try online learning, as they see it to continue their education while staying safe. Even though that was the case students still had a certain attitude or perception regarding online learning, one of the students highlighted that.

According to Alshurafat, Beattie, Jones, and Sands (2020) one of the major challenges in implementing education in the wake of COVID-19 pandemic is students' lack of excitement and interest in new adaption patterns in online learning.

"Ah, it was bad. It really was, because to me it was like, okay, no, it's okay. It's online learning. It's not that deep."

Another student had a different view and the researcher realised the students attitudes towards online learning was largely impacted by their personalities.

Participant 1: *"Not like I personally for me, cause I like being alone. So when we had to be, when we had to use this systems now I just realized, oh, actually gonna be alone. That's gonna be. It's gonna be okay for me. I'm gonna be able to do a few things and now provided I don't have, uh, any, uh, contact class for the day mm-hmm."*

Participant 2: *"With online learning you could just switch on the laptop and attend, but still be in bed. Mm-hmm. So that was one of the most difficult things. The fact that you, I had to say, okay, no, wake up. You have classes".*

Another important variable influencing students' views towards the learning process is their technological proficiency. According to Peytcheva-Forsyth et al. (2018), students' attitudes towards online learning are positively correlated with their level of technical proficiency. *"computer literacy skills. Yeah, I think it's, yes. Have improved. Definitely. Okay. Um, I think that's something you need in journalism."*

Student engagement in the learning process is influenced by their attitudes during the implementation of online learning (Nurani & Widiati, 2021).

The students' attitudes can be summarised as positive as it advances their technological proficiency.

Theme 2: Benefits of using LMS

Benefits: There are many benefits to using learner management systems. These platforms allow students to learn at their own pace, and they can access the materials anytime they want. Additionally, learners can connect with other students and lecturers, which can help them learn more effectively.

All four participants had good things to say about the use of LMS, *"I can actually go home and actually study from home"*

Participant 3: *"that I can always go back to the recorded, uh, uh, lectures and get to maybe reassess what the lecturer has said and also, um, check on what other students have asked inside the, the chat board, you know, so it was, it was actually good".*

Participant 1: *"you are, integrated with your lectures, your tutors and everything. So the best thing about it was that even though you were not going to ask questions in class, maybe you will get a response faster, but you can get a response even late hours maybe if it's not cool work, you can also you can always ask. You can post the question even if it's at night if one or if one sees it or the lecturer sees it, they can answer your question. But if you are doing like"*

Participant 2: “they integrate our resources many different resources like we who are referred to. Maybe you can refer to YouTube video to an article. All those things was nice because they actually put them there for you and in a structured way. So maybe when it's time for examinations you need to revise”

This is in line with Kraveva, Kravev, and Kostadinova, (2019) The LMS's role in facilitating interactions between professors and students through chat, discussion forums, and email is the emphasis of communication tools, the ability for educators and students to download and upload data, an evaluation platform for measuring *student learning achievement, and security measures for LMS user data.*

Finally, the LMS's learning skill tools predominate in online learning and learning activities including task columns, video presentations, connections to uploading resources, and quiz columns.

Syafii (2021) further states that Learning resources in a variety of media, including films, slideshows, texts in word and PDF formats, can be used in online learning. In addition, discussion boards and video conferencing may be used to keep in touch between lecturers and students

The main advantage highlighted by the students is as it reflects the future of education and the possibilities of flexibility and convenience.

Theme 3: Challenges associated with using LMS

Challenges: One of the main challenges of using learner management systems is that not everyone is comfortable with online learning. Additionally, these platforms can be expensive, and not everyone has access to them.

Participant 1: “It was very difficult because I had to understand, you know, sometimes you don't grasp things at that time and the lecture was probably like 30 minutes or an hour and you, you have to learn.”

Participant 2: cited a major challenge when writing exams and online test was the temptation to just copy and paste without really engaging with the content,”

Theme 4: Advantages of using LMS

Advantages: There are many advantages to using learner management systems. These platforms allow students to learn at their own pace, and they can access the materials anytime they want. Additionally, learners can connect with other students and lecturers, which can help them learn more effectively. According to Chang and Kuo (2021) the advantages of LMS in education might make it easier to accomplish learning goals based on targets.

Topacio (2018) further states Utilising a learning management system (LMS) for educational purposes has several benefits, including supporting student-centered learning strategies, enabling learning activities that can be completed at any time and from any location, streamlining course administration, and reducing expenses and time.

Participant 4: The advantage cited by this participant was better computer literacy skills *“I mean, journalism, um, but on a serious note. I think I can do better things on the, than the, on a computer than I used to before”*.

Theme 5: Disadvantages of using LMS

Disadvantages: One of the main disadvantages of using learner management systems is that not everyone is comfortable with online learning. Additionally, these platforms can be expensive, and not everyone has access to them.

Negative aspects include the inadequacy of the software being utilised, improper e-device limits, interrupted internet connections, inadequate teacher teaching, log-in issues, learning finance issues, and lack of teacher learning (Valantinaitė & Sederevičiūtė-Pačiauskienė, 2020).

Participant 4: *“The interactiveness of the lecturer, it wouldn't be as active because people just log in. Mm-hmm. And then they do whatever they're doing. So, and there's no proof or no evidence to show that this child wasn't participating. Cuz they are on, you know, they are within the lesson, but we are not there Indeed”*.

There are several disadvantages, including the fact that a lot of learning activities rely on an internet connection and that many lecturers are still not well-versed in its use (Topacio, 2018).

A few of the students were eager to obtain educational resources and were driven to study more. The students have access to various learning resources using LMS capabilities in addition to the lessons delivered by their lecturers. Not all students, however, were able to quickly adjust to utilising LMS while learning. Thus, a variety of factors, including individual, societal, and organisational aspects, had an impact on the students' opinions towards the learning management system (LMS) (Topacio, 2018).

Thus the main disadvantages found were:

- Limited comfort with online learning: Not everyone is comfortable with online learning, which can hinder their engagement and participation in LMS-based education. Participant 1: *"I didn't know anything about online learning."*
- Financial barriers: LMS platforms can be expensive, making them inaccessible for students who may not have the financial means to access or afford them.
- Inadequate software and device limitations: Some LMS software may be inadequate in terms of functionality and features, and there may be limitations on the types of devices that can be used effectively.
- Internet connectivity issues: Learning activities in LMS heavily rely on stable internet connections, and interruptions or unstable connections can disrupt the learning experience.
- Insufficient teacher learning: Some lecturers may not be proficient in effectively utilizing LMS, leading to inadequate learning and support for students.

Muted engagement: Students may feel less engaged in LMS-based classes, leading to silence during discussions and muted microphones, resulting in a lack of evidence of participation. Supported by Participant 4: *"We're just there to mark the register to show that. I was, I logged in on this day, but, so it means I was present, yes. But then, but being present, present, present mean. Yeah. So when questions are being asked, it's quiet. Mm-hmm. Mics are being switched off."*

Challenges in assessing active participation: The interactive nature of traditional classroom environments may be compromised in LMS, making it difficult to assess and ensure active participation of students.

These points highlight the disadvantages associated with the usage of LMS in higher education institutions, including technological limitations, learning challenges, and potential impacts on student engagement and participation (Valantinaitė and Sederevičiūtė-Pačiauskienė, 2020).

Emerging themes

Cheating during online exams

One of the major challenge cited by students which was not highlighted in literature was cheating during exams, students could cheat or copy using different methods

Participant 2: *“It’s so easy to just copy and paste something and these days these days they so many other apps that help you paraphrase that help you and Like we were writing exams like for three hour exams in like with finish in 20-30 minutes and then we just have the rest of the minutes just flying away so that maybe they do not get suspicious.*

Background

Participant 3: *“I’m from a, a rural area. Mm-hmm. So it was just strictly going to, to to school for there we have, we don’t have those, uh, technologically technological materials, just to be precise.”*

Participant 4: *“so my background with education is basically that I went to a Model C school. with quite a lot of, um, resources I could say, you know, unlike other schools. I think I was quite privileged with that.”*

This theme shed some light in students’ acceptability of LMS had to do with where they came from.

Trustworthiness

According to Connelly (2016), the degree of confidence in data, interpretation, and techniques employed to assure the quality of a study is what is meant by "trustworthiness" or "rigor of study." To develop a high-quality study, the suitability of all the procedures involved in this research, including the data gathering and analysis methodologies, must be considered. Connelly (2016) further states that trustworthiness is the capacity of the researcher's findings to be believed, or all the things the researcher did during the planning, execution, and reporting phases of the research to make the findings trustworthy. A consistent approach should be followed in the planning, carrying out, and publishing of the research findings to increase credibility of results and provide readers reason to believe study findings. While validity and reliability are used to assess quantitative research.

Credibility

The degree to which research findings accurately reflect the perspectives of study participants is known as credibility (Lietz and Zayas, 2010). In other words, study findings' credibility is determined by whether they accurately and correctly interpret the participants' viewpoints and reflect facts derived from their original replies. Lietz and Zayas (2010) and Nowell, Norris, White and Moules (2017) both agree that credibility considers how well respondents' opinions align with how the researcher represents them. The researcher will ask the students who were interviewed to review the transcriptions to ensure that their comments were accurately recorded.

Transferability

Transferability, according to Shenton (2004), is the degree to which the results of one study may be used in other contexts. This implied the potential to apply the findings of one case study to another with a similar setting and almost identical circumstances in the hopes of achieving comparable outcomes. Connelly (2016) also agrees that transferability describes how relevant insights are to people in various contexts. Polit and Beck (2014) point out that readers must decide how relevant the findings are to their own circumstances. In other words, after reading study results, readers determine if the results are applicable to their own situations. By include lengthy details in the data presentation and analysis, the researcher improved the transferability of study findings.

Dependability

Dependability, also known as auditability, typically refers to a scenario where the research method is sufficiently detailed to allow for the replication of the work by another researcher. According to Cameron (2011), who supports this viewpoint, dependability involves providing enough information about techniques and procedures used to conduct research so that it can be examined and verified. For this study, the researcher will regularly contact the supervisors to verify consistency in study findings and to prevent personal biases.

Confirmability

Confirmability, according to Shenton (2004), is the process of making sure that the research's conclusions come from the participants' thoughts and experiences rather than the researcher's preferences or personal traits. The research's conclusions should not represent the researcher's opinions, but rather the participants' original thoughts or viewpoints. According to Shenton (2004) and Polit and Beck (2012), confirmability of findings indicates that the data correctly reflect the information that the participants supplied, and that the interpretive framework used to make sense of the data was not created by the researcher. In this study, I asked participants to member check as mentioned above and audio-recorded their replies to confirm that the data collected was correct.

Feasibility of the study

The accessibility of the participants makes the study feasible. The study examines the experiences of undergraduate students on the usage of LMS because of COVID-19. The researcher has access to these students through a student who stays in a residence which accommodates students from various institutions around Johannesburg.

Ethical Considerations

When doing research on humans, ethics must be considered, and the researcher should preserve participants' opinions (Chevalier and Buckles 2013:171). Research

ethics are crucial because they direct the researcher in safeguarding the participants. Several ethical problems for this study must be considered to ensure that the researcher is according to the university research code's ethics principles.

Informed consent

Researchers must seek the unrestricted, continuous permission of every study subject, as well as that of an authorized third party for those who lack the mental ability to do so (Chevalier & and Buckles 2013:171). Since participants are free to leave the research at any time if they do not feel comfortable, the informed consent stands for respect for them. An introduction to the study, an explanation of what it comprises, how participants will be safeguarded in terms confidentiality, and the person to contact to discuss the research must all be included in the consent form. Everyone who took part in the study will have given their informed permission.

Respect for confidentiality

It is crucial to protect people's privacy while dealing with sensitive material, their views, and society norms. When information must be kept private, they are said to be confidential.

Limitations

This research intends to examine the undergraduate students' experiences of the usage of online learning systems.

The aim of the research is to understand students experiences in the usage of online learning systems as a result of covid 19. The findings cannot be generalised beyond the mentioned location and scope. Considering that a thesis is structured within a timeframe, a thorough study may not be possible. The size and population of Johannesburg also means that attempting a representative study of all students in the province in general would not be feasible. Thus, this study is limited to conveniently select students in the Johannesburg.

Anticipated contribution

This study aims to assist the academic community in South Africa in comprehending how students utilize LMS. It will also highlight potential intervention programs that may be put into place to increase and enhance the usage of modern technology in the classroom.

Conclusions and recommendations

Many undergraduate students will have encountered varying degrees of success and challenges when utilising an online learning system because of the abrupt change to online learning brought on by COVID-19. There are advantages and disadvantages to this move, it is obvious after investigating undergraduate students' experiences with online learning tools. To determine how to help students effectively, it is vital to consider the range of experiences. It is crucial to investigate how an undergraduate student used online technologies in response to COVID-19 and their experiences with them.

RQ1: What are the students' attitudes towards LMS in the classroom?

Students were reluctant to adopt technology for various reasons, like ease of access, technical issues of accessibility, inability to use the technology.

To guarantee easy adoption and use of LMS platforms, educational institutions and organisations must make infrastructure investments and provide the required training (Alturki and Aldraiweesh, 2021).

it is recommended that technical assistance be made available as it will boost students' attitudes towards the technology should they encounter any problems while using it. Administrators could provide students incentive programmes like awards and points based on how frequently they use the platform to encourage them to utilise it actively.

Lastly the educational institutions should make sure that the design of their learner management system is straightforward and user-friendly for both students and lecturers.

RQ2: What are the benefits of using LMS in the classroom?

With online learning students benefited from more flexible access to course materials and the ability to forego expensive transportation fees.

According to Gautam (2020) students may manage their schooling with other duties like employment or family obligations thanks to this flexibility, additionally, it removes the need to commute to actual schools, saving both time and money.

It is recommended that students be encouraged to see learner management systems favourably since they can improve the effectiveness and pleasure of their educational experience. There are several actions that schools should do to foster a better learning environment using these systems.

RQ3: What are the challenges of using LMS in the classroom?

several patterns emerged among people who were impacted by lockdown laws.

Due to technological restrictions or out-of-date technology and software at home, many people had trouble adjusting to or finding accessible resources for further study.

Syafii (2021) states that Learning resources in a variety of media, including films, slideshows, texts in word and PDF formats, can be used in online learning. In addition, discussion boards and video conferencing may be used to keep in touch between lecturers and students. By offering specialised resources and tools to improve students learning experiences, online learning accommodates those with impairments (Neisser, 2020).

It is recommended to promote technology adoption by students will be much more seamless with the proper measures put in place by education administrators connected to learner management systems, which will lead to improved educational outcomes for them.

Practical Assessments of each student must be included in recommendations, as must the economic measures required to enable them to meet the academic obligations placed on them by their education in these uncertain times.

In conclusion, there are benefits, advantages, and disadvantages to using learning management system because of the unexpected transition to online learning brought on by the COVID-19 epidemic. To improve the overall learning experience and address the difficulties students encountered during this transitional phase.

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Annexures

Appendix 1: Interview schedule

Name	Surname	Gender	Level	Date	Time	Face to face/online	Course
		F	3rd	09/03/2023	10:00 am	Face to face	Diploma in Journalism
		F	3rd	16/03/2023	12:00 pm	Face to face	Bachelor of Education
		M	3rd	21/03/2022	10: 00am	Face to face	Degree in Physiotherapy
		M	3rd	22/03/2023	15:00pm	Online	Degree in Information Technology

Questionnaire

My name is Nomvula Sikakane I am conducting a study on the

undergraduates' students' experiences of the usage of LMS as a result of COVID-19

Questions

Please tell me a bit about yourself

Educational background

1. What are the students' attitudes towards LMS in the classroom?

What is your experience of learning online before covid?

How did you find the use of LMS to conduct classroom?

What was your attitude towards LMS?

2. What are the benefits of using LMS in the classroom?

What would you say were the benefits of using LMS in the classroom?

How did the use of LMS in the classroom assist you in understanding of modules taught?

How did the use of LMS contribute towards your success as a student?

3. What are the challenges of using LMS in the classroom?

What were the challenges related to understanding content

What technological challenges did you have in the use of LMS?

Appendix 2: Annexure J - Consent form for respondents and participants

CONSENT FORM

Explanatory information sheet and consent form for participants

To whom it may concern,

My name is **Nomvula Promise Sikakane** and I am a student at IIE Varsity College. I am currently conducting research under the supervision of **Paula Hall** about **undergraduate students' experiences of the usage of online learning systems as a result of COVID-19** I hope that this research will enhance our understanding of the academic community in South Africa in comprehending how students utilize LMS. It will also highlight potential intervention programs that may be put into place to increase and enhance the usage of modern technology in the classroom.

I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because (insert reason). If you decide to participate in this research, I would like to (explain exactly what participation will involve).

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your (insert what you are examining). If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;

- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at **IIE Varsity College**, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my **Postgraduate Diploma in Higher Education**. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

[Nomvula]

The contact details of my supervisor are as follows:

Paula Hall

--

Participant or respondent consent
I, _____, agree to participate in the research conducted by [Nomvula Promise Sikakane] about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. This research has been explained to me and I understand what participation in this research will involve. I understand that: • I agree to be interviewed for this research. • My confidentiality will be ensured. My name and personal details will be kept private. • My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research. • I may choose not to answer any of the questions that are asked during the research interview. • I may be quoted directly when the research is published, but my identity will

be protected.	
Signature:	Date: 16/03/2023

CONSENT FORM

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Nomvula Promise Sikakane and I am a student at IIE Varsity College. I am currently conducting research under the supervision of Paula Hall about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. I hope that this research will enhance our understanding of the academic community in South Africa in comprehending how students utilize LMS. It will also highlight potential intervention programs that may be put into place to increase and enhance the usage of modern technology in the classroom. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or

explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because (insert reason). If you decide to participate in this research, I would like to (explain exactly what participation will involve).

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your (insert what you are examining). If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;
- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at **IIE Varsity College**, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information

in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my **Postgraduate Diploma in Higher Education**. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

[Nomvula]

[]

[]

The contact details of my supervisor are as follows:

Paula Hall

]

Participant or respondent consent	
I, _____, agree to participate in the research conducted by [Nomvula Promise Sikakane] about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. This research has been explained to me and I understand what participation in this research will involve. I understand that: • I agree to be interviewed for this research. • My confidentiality will be ensured. My name and personal details will be kept private. • My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research. • I may choose not to answer any of the questions that are asked during the research interview. • I may be quoted directly when the research is published, but my identity will be protected.	
Signature:	Date: 21/03/2023

CONSENT FORM

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Nomvula Promise Sikakane and I am a student at IIE Varsity College. I am currently conducting research under the supervision of Paula Hall about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19 I hope that this research will enhance our understanding of the academic community in South Africa in comprehending how students utilize LMS. It will also highlight potential intervention programs that may be put into place to increase and enhance the usage of modern technology in the classroom. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study?
I would like to invite you to participate in this research because (insert reason). If you decide to participate in this research, I would like to (explain exactly what participation will involve).

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your (insert what you are examining). If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;
- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at **IIE Varsity College**, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my **Postgraduate Diploma in Higher Education**. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

[Nomvula]

[]

[]

The contact details of my supervisor are as follows:

Paula Hall

CONSENT FORM

Participant or respondent consent	
I, _____, agree to participate in the research conducted by [Nomvula Promise Sikakane] about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. This research has been explained to me and I understand what participation in this research will involve. I understand that: • I agree to be interviewed for this research. • My confidentiality will be ensured. My name and personal details will be kept private. • My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research. • I may choose not to answer any of the questions that are asked during the research interview. • I may be quoted directly when the research is published, but my identity will be protected.	
Signature:	Date: 09/03/2023

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Nomvula Promise Sikakane and I am a student at IIE Varsity College. I am currently conducting research under the supervision of Paula Hall about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19 I hope that this research will enhance our understanding of the academic community in South Africa in comprehending how students utilize LMS. It will also highlight potential intervention programs that may be put into place to increase and enhance the usage of modern technology in the classroom. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study?
I would like to invite you to participate in this research because (insert reason). If you decide to participate in this research, I would like to (explain exactly what participation will involve). You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.
Are there any risks/ or discomforts involved in participating in this study?
Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your (insert what you are examining). If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.
Do I have to participate in the study?
• Your inclusion in this study is completely voluntary; • If you do not wish to participate in this study, you have every right not to do so; • Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.
Will my identity be protected?
I promise to protect your identity. I will not use your name in any research

summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at **IIE Varsity College**, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my **Postgraduate Diploma in Higher Education**. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

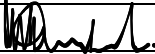
My contact details are as follows:

[Nomvula]

**[
]**

The contact details of my supervisor are as follows:

Paula Hall

Participant or respondent consent	
I, <u>Muano Makhokha</u>, agree to participate in the research conducted by [Nomvula Promise Sikakane] about undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. This research has been explained to me and I understand what participation in this research will involve. I understand that: • I agree to be interviewed for this research. • My confidentiality will be ensured. My name and personal details will be kept private. • My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research. • I may choose not to answer any of the questions that are asked during the research interview. • I may be quoted directly when the research is published, but my identity will be protected.	
Signature: 	Date: 21/03/2023

Appendix 3: Annexure K - Consent form for Audio or Video Recording

CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants

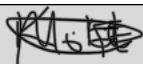
I, ___ Keamo Molefe___, agree to allow Nomvula Promise

Sikakane to audio record my interviews as part of the research. The aim of the research is to explore undergraduate students' experiences of the usage of online learning systems as a result of COVID-19 . How do undergraduate students In Johannesburg (JHB) perceive usage of LMS in higher education institutions?

This research has been explained to me and I understand what participation in this research will involve. I understand that:

- My confidentiality will be ensured. My name and personal details will be kept private;
- The recordings will be stored in a password-protected file on the researcher's computer; and
- Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.

Signature



Date

16/03/2023

CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants

I, _____KWENA SEBOLA_____, agree to allow Nomvula

Promise

Sikakane to audio record my interviews as part of the research. The aim of the research is to explore undergraduate students' experiences of the usage of online learning systems as a result of COVID-19 . How do undergraduate students In Johannesburg (JHB) perceive usage of LMS in higher education institutions?

This research has been explained to me and I understand what participation in this research will involve. I understand that:

- My confidentiality will be ensured. My name and personal details will be kept private;
- The recordings will be stored in a password-protected file on the researcher's computer; and
- Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.

Signature 

Date:

21/03/2023

CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants

I, Muano Makhokha, agree to allow Nomvula Promise Sikakane to audio record my interviews as part of the research. The aim of the research is to explore undergraduate students' experiences of the usage of online learning systems as a result of COVID-19. How do undergraduate students In Johannesburg (JHB) perceive usage of LMS in higher education institutions?

This research has been explained to me and I understand what participation in this research will involve. I understand that:

- My confidentiality will be ensured. My name and personal details will be kept private;
- The recordings will be stored in a password-protected file on the researcher's computer; and
- Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.

Signature Muano Makhokha.

Date 21/03/2023

CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants	
I, _____ Zwivhuya Carol NemaKonde_____, agree to allow Nomvula Promise Sikakane to audio record my interviews as part of the research. The aim of the research is to explore undergraduate students' experiences of the usage of online learning systems as a result of COVID-19 . How do undergraduate students In Johannesburg (JHB) perceive usage of LMS in higher education institutions? This research has been explained to me and I understand what participation in this research will involve. I understand that: • My confidentiality will be ensured. My name and personal details will be kept private; • The recordings will be stored in a password-protected file on the researcher's computer; and • Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.	
Signature 	Date 09/03/2023

Appendix 4: Template 3 - Student declaration

TEMPLATE 3 – STUDENT DECLARATION

I hereby declare that the research report/mini dissertation/dissertation/thesis submitted for the **Postgraduate Diploma in Higher Education** to The IIE is my own work and has not previously been submitted to another University or Higher Education Institution for a degree. **I also declare that the electronic copy is a true and accurate reflection of the hardcopy.**

Signature:	
Date:	28 September 2022

Appendix 5: Ethical clearance letter



15 November 2022







Student name: Nomvula Sikakane
Student number: ST10183770
Brand and campus: Varsity College Online Centre

Approval of PGDHE Proposal and Ethics Clearance

Your research proposal and the ethical implications of your proposed research topic were reviewed by your supervisor and the campus research panel, a subcommittee of The Independent Institute of Education's Research and Postgraduate Studies Committee.

Your research proposal posed no significant ethical concerns and we hereby provide you with ethics clearance to proceed with your data collection.

There may be some aspects that you still need to address in your proposal. If this is the case, feedback will be provided to you in writing. You will need to address these aspects in consultation with your supervisor.
Remove usage from the title. Alignment between title and RQs is needed. Clarify if it is online learning systems or LMS specifically.

In the event that you decide to change your research topic or methodology in any way, kindly consult your supervisor to ensure that all ethical considerations are adhered to and pose no risk to any participant or party involved. A revised ethics clearance letter will be issued in such instances.

We wish you all the best with your research!

Yours sincerely,



Paula Hall
Supervisor



Dr Nazaruna Mather
Campus Postgraduate Coordinator



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ANNEXURE E – RESEARCH REQUEST FORM (IIE007)

REQUEST TO CONDUCT RESEARCH ON OR ABOUT STUDENTS, STAFF, SITES OF ARTEFACTS OF THE INDEPENDENT INSTITUTE OF EDUCATION (THE IIE)

General learnings:

- This is a non-editable form; only ungreyed fields in the tables can be filled in. Some fields provide spaces for ticks, while others provide spaces for text to be entered or dates to be selected.
- Context-specific learnings appear in some sections.
- Only tick relevant boxes. All relevant dates must be selected by those and only those to which the date selection is relevant. Not all text fields will be relevant to all candidates. Where a text field is not, please mark it with an 'N/A' to indicate that the empty field was not overlooked.
- Text fields, though small in appearance, automatically expand as required by the text. Tables are also adjusted accordingly as a result.
- Headings and contextual delimitation appear in black text in the tables. The text you insert in the applicable fields in the tables will appear in blue. This cannot be changed.

Note for candidates who are not affiliated to The IIE as a student, staff member or contractor:

This form, and all other relevant documentation, should be completed and forwarded electronically to research@iie.ac.za and marked for the attention of the Dean: Research and Postgraduate Studies. Where applicable, you must provide the required accompanying documentation with this form, such as an ethics clearance certificate, a participant or respondent consent form and your measurement instrument.

Note for candidates affiliated to The IIE as a student, staff member or contractor:

Find out who the person responsible for managing research is at your campus. It is their job to send your completed research request form to the office of the Dean: Research and Postgraduate Studies. Where applicable, you must provide the required accompanying documentation with this form, such as an ethics clearance certificate, a participant or respondent consent form and your measurement instrument.

About the researcher												
Title	Prof	☐	Dr	☐	Ms	☒	Mrs	☐	Mr	☐	Mx	☐
First name(s)			Nomvula Promise									

Last name	Sikakane		
Student number (if applicable)	ST10183770		
SA ID number	8450997081010		
Passport number (if applicable)	Click or tap here to enter text.		
Home address		Postal address	
1016 Jadida Street		Tick if same as home address ☒	
Savanna City		Click or tap here to enter text.	
Code:	1984	Code:	Insert code.
Telephone number	0735371777	Cell phone number	0735371777
Email	nomvulanps@gmail.com		

About the researcher's affiliations													
<i>Institutional affiliation</i>													
<i>If research forms part of a qualification or institutionally sanctioned research project</i>													
Institution enrolled at		IIE Varsity College											
Qualification name		Postgraduate Diploma in Higher Education											
		Education of Education											
<i>About the supervisor or promoter</i>													
Title	Prof	☐	Dr	☐	Ms	☒	Mrs	☐	Mr	☐	Mx	☐	
First and last names		Paula Hall											
Email address		paulahvc@gmail.com											
<i>Corporate or organisational affiliation</i>													
<i>If the research forms part of a project sanctioned by a company or association or organisation</i>													
Employer		Click or tap here to enter text.											
Physical address		Click or tap here to enter text.											
		Code	Click or tap here to enter text.										
Contact number		Click or tap here to enter text.											
Researcher's position or designation		Click or tap here to enter text.											

About the head of the company, association or organisation												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☐	Mx	☐
First and last names			Click or tap here to enter text.									
Email address			Click or tap here to enter text.									
Researcher's position or designation			Click or tap here to enter text.									

About the research		
Purpose of the proposed research <i>Tick the appropriate option</i>	Undergraduate study	
	Postgraduate study	X
	Private company or agency	
	IIE Celebrate Teaching and Learning	
	Other (if other, explain below)	
	Click or tap here to enter text.	
Qualification or output type <i>For example, a Master's degree or a journal article</i>	PGSE	
Full title of the research	Exploring undergraduate students' experiences of the usage of online learning systems as a result of COVID-19	
Value of the research	Understanding student experiences of LMS	
Proposed date of completion	2023/06/01	
Proposed date of submission of research findings to The IIE	2023/04/30	

About the methodology					
Indicate by ticking the appropriate block and answering the relevant sections.					
Questionnaire	☐	Interviews	☒	Observations	☐
Existing	☐	Structured	☐	Number of observations	...
Own	☐	Semi-structured	☒	Note what will be observed.	
Open-ended	☒	Number of interviews	4	Click or tap here to enter text.	

Number of respondents	4	Focus group or workshop	☐		
Briefly identify, describe or explain the questionnaire. Click or tap here to enter text.		Participants per focus group	...		
		Number of focus groups	...		
	Briefly expand on the interview, workshop or focus group questions. See separate annex for interview questions				
Purposive	☒	Random	☐	Snowball	☐
Convenient	☐	Stratified	☐	Census	☐
Other (if so, state)		Click or tap here to enter text.			
Other methods <i>If so, state the method and expand on how it will be used</i>		Click or tap here to enter text.			
List of the student or staff groups, sites or artefacts under study		Click or tap here to enter text.			
Average time participants or respondents will be involved in research activities		30 minutes			

About the ethics considerations for the research						
Aspects considered	Informed consent	☒	Anonymity	☐	Confidentiality	☒
	Committed to give feedback on the study	☐	Voluntary participation	☒	Vulnerable group involved	☐
	Elaborate on vulnerable groups		Click or tap here to enter text.			
Documentation submitted with proposal*	Ethics clearance certificate or letter					☐
	Instrument(s) (interview schedule or questionnaire)					☒
	Participant or respondent consent form that includes information sheet for participants or respondents					☒

Select the	Audio-visual consent form (if applicable)	☒
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applicable options

Conditions for conducting research on or about students, staff, sites or artefacts of The Independent Institute of Education

1. A copy of the final paper must be submitted electronically to The IIE's Dean for Research and Postgraduate Studies at research@iie.ac.za no later than 30 days post finalisation.
2. The researcher(s) is not permitted to either refer to The IIE or any of its educational brands or to the name, logo, brand or any other identifiers of The IIE or any of its educational brands in any way, including, but not limited to, in questionnaires, surveys, interviews, proposal or research reports. The IIE or educational brand in question must be referred to in a generic manner, for example, 'A private provider'.
3. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.
4. If the Learning Management System (LMS) of The IIE is used, the researcher(s) is not permitted to refer to it by name. Learn needs to be referred to in a generic manner, for example "the Learning Management System of a Higher Education provider."
5. A copy of this letter must be forwarded to the relevant person(s) at the brand or The IIE that would be involved in the study.
6. Research must be conducted in such a way that the normal programme and operations of the site/ offices is not interrupted.
7. The principal/ manager of a site must be consulted about an appropriate time when the researcher(s) may carry out the research at the site.
8. The researcher(s) may only use this data for these research purposes and in no other way.
9. Should the researcher(s) wish to publish this research or in any way make the results public, for example by publishing the results on a social media platform, this committee will need to approve a request to this end first.
10. No names or identifying information of participants may be used within the research and the research must be voluntary.
11. Photographs of human subjects may only be taken if relevant to the research and informed consent from the participants or respondents was obtained, and, even with informed consent, the photographs may not be published.
12. The researcher is responsible for supplying and utilising his/ her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions or the offices visited for supplying such resources.
13. If any of The IIE reports or policies are used as part of the research, all identifying information needs to be removed.
14. Please make it clear that the information will not be used punitively in any way and participants may in no way be counselled or advised based on this.
15. The reference number of the permission letter, if permission is granted, must appear, in one format or another, on all research documentation distributed amongst IIE staff or students.

Declaration by the researcher

1. I declare that all statements made by myself in this application are true and accurate; and
2. I accept the conditions associated with the granting of approval to conduct research and undertake to abide by them.

2022/09/28

	
Signature of the researcher	Date

Declaration by the supervisor/promoter/lecturer	
I declare that	
1. the above researcher is enrolled at the institution/ employed by the organisation to which the undersigned is attached; 2. and that the research proposal and or study has been approved by the Ethics Committee of The Independent Institute of Education; and 3. and that the questionnaires/structured interviews/tests meet the criteria of: • Educational accountability; • Proper research design; • Sensitivity towards participants; • Correct content and terminology; • Acceptable grammar; and • Absence of non-essential/superfluous items.	
	2022/09/27
Signature of the supervisor/promoter/lecturer	Date

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